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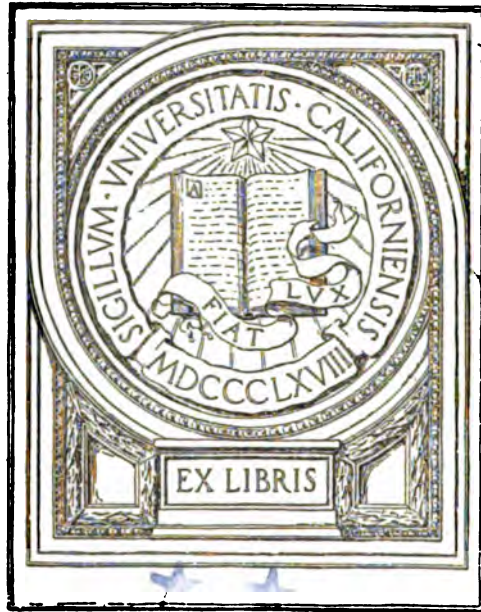
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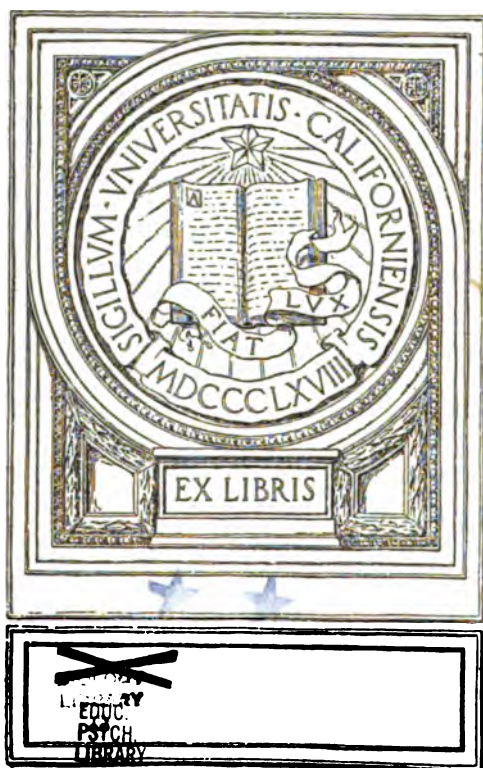
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# THE JOURNAL OF ABNORMAL PSYCHOLOGY

VOL. XIV

APRIL—JUNE, 1919 (Double Number)

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## ORIGINAL ARTICLES

### THE MECHANISM OF THE WAR NEUROSES<sup>1</sup>

BY SIDNEY I. SCHWAB, M. D.

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**T**HE importance of the war neuroses for peace conditions lies chiefly in two things; its mechanism and its therapy. These two things are capable of utilization in the practical problems presented by the neuroses as they appear in the clinics, hospitals, and practice of neurologists.

Inasmuch as a therapy of the neuroses must be based upon a conception of their mechanism, these two aspects of the question are intimately related.

By mechanism is meant the coordinating factors in the production of a neurosis in so far as they represent an integrating structure. It is obvious that this kind of consideration implies the examination of several factor groups. First, the individual as represented in this instance by his nervous system. Secondly, the traumatic incidents associated with warfare in its various phases. Third, the reaction of this nervous system to such traumata. The end result is a type of war neurosis and stands out as a kind of crystallization of the hard won adaptation or compromise to the ever present contingency of participation in the activities of warfare.

An analysis of these several factor groups should give a workable scheme of the cause, the purpose, and the machinery of the war neuroses.

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<sup>1</sup>Read before the American Neurological Association, June 17, 1919.

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The basis of a study of this kind should be a sufficiently large number of cases seen under the varying conditions of warfare, so that, the soldier may be studied as nearly as possible at the first inception of the traumatic impact, whatever its nature may be, and down through the various phases in the development of his neurosis.

It implies observations of forward areas, forward neurological stations, special base hospitals and so down to convalescent camps, home hospitals, and then in the stage of active contact with previous environment. A study of the anticipatory type of neurosis on the way up to the front is essential to get the complete story.

A good deal of what I have to say on this subject has been set down in a paper published in the Archives of Neurology of May, 1919, under the title of "War Neuroses as Physiological Conservations." I mention this now more to indicate the conception of the war neuroses that has developed in my own mind than with any desire to emphasize that article.

The war neuroses appear to me to be physiological conservations, the purpose of which is to protect the individual against either experiencing or re-experiencing the varying traumata of warfare. The purposive character of a neurosis must be admitted before this conception can be accepted. The evidence of this is derived partly from the study of numerous instances in which the neurosis developed as a measure of protection in the face of an immediate event and tended to disappear when the necessity of this protection was no longer present.

The further evidence of the purposive character of a neurosis is to be found in the study of the defense system present in all living things to counteract the destructive agencies met with in the struggle for existence. The physiological system of defense, of which, perhaps, the phenomena of fatigue is the best example, blood pressure variations, the polyglandular functions brought into activity by emotional stresses are sufficient to indicate the general line of reasoning followed. The chemical reactions shown by immunity, the protective influence of changed anatomical relations, such as hypertrophy of heart muscles, arteriosclerosis, etc., are suggestive that defensive reactions are the most usual methods against the incidental destructive agencies in the conflict of life.

By analogy it may be admitted that a similar system of protection exists in what might be designated as the psychological sphere, and in this territory the neuroses for the most part find their place. Apart from analogy numerous studies by the several methods of investigation

such as hypnotism, psychoanalysis, or any other type of analytical study, has established the fact that the neuroses are in the main protective or defensive in type. Admitting this, and it would seem impossible to refuse to do this, then the purposive character of the neuroses follows. This gives them therefore a place in the defensive system of the organism, and as such they can be objectively studied in the same way as other conditions found in the living organism which result from changes produced in the course of adaptation to conditions which threaten its integrity.

In giving to the neuroses the characteristic of purposeness the assumption is not made that this purpose is conscious, or has the quality of awareness. The purposeful plan of a neurosis arises frequently from its utter necessity to the individual, so that it must possess also a degree of automatism approaching that of a reflex. The neuroses, therefore, should be thought of as purposeful elaborations of a series of co-ordinated reactions. This places the individual in such a condition of neutrality to the activities in which he may be called upon to participate that for the time being at any rate he is saved from exposure to whatever traumatism with which they may be associated. The neurosis, therefore, protects him from either re-experiencing a set of traumatically laden experiences or experiencing those which by anticipation he is prepared to find as destructive as the actual experiences.

In the war neuroses we are dealing with a given set of traumata, chiefly of a violent character in which elements most destructive to the human organism are found. So destructive are these that they stimulate into activity the most fundamental of all instincts; that is, self preservation. In the civilian neuroses it is seldom that the protective quality of the neurosis is activated by so deep seated an instinct as this. For in these conditions are found factors due to social and economic stresses of one kind or another, which set into activity the secondary instincts. In the further study of the civilian neuroses important use of these secondary instincts, and of course the second of the primitive instincts, the sexual instinct, in its broadest conception, should be made. In the neuroses of war, however, there stands out this primitive instinct of self preservation and its most powerful activating force the emotion of fear.

If, therefore, the conception of the war neuroses as a primitive purposeful defense system and its activating agency, the instinct of self preservation with its emotional stimulus, fear, be admitted then the ground work of the mechanism is laid, which, when set into activity

under given conditions and under the influence of personal reactions, results in the various clinical pictures to which the term war neuroses is given, or shell shock, the term used in the British army.

Before taking up the various instances leading up to the production of the neuroses in the soldier, a definite statement of the writer's view as to certain much discussed points must be made.

First, there is a small percentage of cases, probably under 2 per cent., in which there is evidence of a definite change in the nervous system produced by concussion. These cases are not primarily war neuroses, but the symptoms are capable of organization into the typical clinical pictures of war neuroses as a subsequent phenomenon. These cases are types of severe concussions in which the structures of the nervous system are so severely shocked or disturbed in their continuity that traces of this change can be demonstrated. Globulin in the spinal fluid, some increase in the cell content, or in some instances changes in the optic disc have been described.

Second, any soldier whatever his past history may be and without any evidence of neuropathic inheritance and without any marked neuropathic tendency may under proper conditions become the subject of a war neurosis.

Third, such soldiers who belong to any of the so-called neuropathic types will probably develop a war neurosis more readily and recover from it less readily than the strictly normal individual.

Fourth, a great percentage of uncured cases belong to the neuropathic class.

Fifth, the presence of a severe wound of any kind furnished so adequate a defense in the aforementioned scheme that the necessity of a neurosis does not arise.

A soldier going to the front area or in the process of his training for that period is more or less constantly under the influence of a series of automatic repressive exercises. Some of these have to do with the anticipation which tends to arouse in him the emotional consequence of an expected series of experiences. The outward evidence of this emotion naturally is not evident or perhaps it is side tracked by various substitute actions following the well-known Freudian rule. The normal soldier soon becomes accustomed to his environment and shows no evidence of the conflict which is being carried on in his consciousness. Inhibition or repression becomes automatic, habitual, a reflex. He is not consciously concerned, therefore, with anything that has not the touch of reality and he lives chiefly and is interested

chiefly in his environmental contact. There are certain things he must not do and there are certain emotions, traces of which he must not show. His own sense of soldierly conduct, plus the grip of discipline and that greater and more intangible thing called morale, all aid in fixing the repression tendency until it becomes habitual. Such evidences of fear as he feels are prevented from becoming dynamic or translating themselves into muscular activity by the necessity of his position as a soldier, whatever the special activity of his position happens to be. Such a typical soldier, I believe, will never develop and can never develop a war neurosis, unless an event or series of events happen to him which have the tendency to lessen the grip which the habitual inhibition has upon him. Whenever there comes to him a series of events which tend to weaken him physically or mentally so that inhibition needs his conscious attention then the preliminary or favoring elements in the production of a war neurosis are set going. These in the order of their importance, as shown by experience, are fatigue, loss of sleep, hunger and thirst, worry, responsibility, uncertainty, and the general lowering of discipline and morale. The condition thus produced favors the production of a state which permits the self-preservation instinct to have full control and to act in the only way this instinct can act; that is, in the production of some muscular effort which tends to shelter the individual from whatever destructive agency is in sight; flight, concealment, immobility, are the common maneuvers which result. The soldier cannot adopt these measures of defense as a general rule and there is substituted one of the types of the war neuroses.

There are two kinds of traumata which are commonly met with in the histories of cases of war neuroses. Both of these act similar to shock process and both of them have the capacity to produce dissociation phenomena in consciousness. One is a suddenly acting shock effect mechanically produced which acts in the manner of a concussion; the other finds its shock result primarily in the emotional sphere. Both of them render the soldier either confused, dazed or unconscious.

The mechanically produced shock is usually due to the explosion of a shell in the neighborhood of a soldier by which he is concussed, stunned, tossed about, thrown to the ground and at times buried. The emotionally overloaded experiences are any of the numerous unexpected, sudden and terrifying events which occur either to the soldier or of which he is a witness. Commonly these experiences leave him untouched physically, but so disturb the vaso-motor mechanism



that consciousness is suddenly lost, or is gradually or partially lost. In both instances a period, sometimes longer and sometimes shorter, intervenes in which the soldier loses his self control and enters into a condition of daze, confusion and automatism. Inhibition is completely lost and the self preservation instinct tends to act, unrestrained by any exercise of conscious or automatic inhibition. The recently acquired results of discipline or morale tend to disappear completely, and the soldier for the time being acts as an instinctive and primitive organism, under the guidance of the most primitive of impulses, that is, of self preservation.

For the development of a neurosis, or rather in order to start the soldier on the way to a neurosis, two circumstances are necessary. First, there must be a mechanism by which the initial symptoms resulting from the traumatic experience tend to become fixed and there also must be introduced a means by which the symptoms thus fixed may become elaborated. Therefore, fixation and a state of acceptance or suggestibility furnish the necessary mechanism to this end.

It is in the period of returning consciousness, when the soldier is dazed and only dimly aware of his surroundings and only partially in touch with the military environment, that these two factors act with a surprising promptness and definiteness. It is here too that the tendency toward fixation of the last conscious act of mechanical defense becomes through habituation an objective symptom which by repetition often completely dominates the clinical picture. Movements of dodging, bizarre movements of the hands to protect the face against the blinding flash of an explosion, tic-like movements of the head and neck, gross choreiform movements of warning, signalling, fixed attitudes of the hands and trunk, fleeing movements of the legs, spastically fixed positions of the extremities, etc., are found on returning consciousness to have become automatic and divorced from conscious control, through the mechanism of dissociation resulting from the acute shock process. The blindness resulting from the flash of an explosion, the deafness due to the sudden impact of air in the auditory canal, the dislocation of the speech function into muteness comes about in this fashion. I mention these few symptoms to illustrate what is conceived to be the origin of such symptoms and not in any measure to describe the resulting clinical picture. Many a soldier at the stage of returning consciousness has been diverted from becoming a subject of war neuroses by the setting into activity of two counter currents. These act as neutralizing agents to the further stereotyping and elab-

oration of symptoms. One has to do with the awakening, in the soldier's mind, of the previously obliterated inhibition; the other is supplied by the agency of skillfully rendered neurological treatment. If both of these two things happen to be present then the soldier gradually regains his former condition and the acute symptoms tend to disappear and within some hours to a few days he is in condition to take up again his duty as a soldier. If neither is at hand; that is, if in the soldier's personal make up there does not happen to be enough residue to start the counterflow, and if he escapes intelligent handling, neurologically or otherwise, he automatically surrenders himself to the developing neurosis and reaches the base hospital as a well established example of one of the numerous types of war neuroses.

This effort at re-establishment may take place at any time from the moment when some trace of consciousness is present to the period of transportation and stay in a hospital. This part of the mechanism I have termed the convalescent conflict.

The further removed the patient is from the actual combat zone, that is, front area in the broad sense, the more difficult will restoration be.

This brief outline of the mechanism is a mere framework out of which the various types of the neuroses may develop, and as such be classified according to the mechanism set going in each particular case. The particular kind of neurosis that develops represents the personal reaction of the individual; his own reaction type to psychical traumata; his previous personal neurological experience; his own tendency to processes of dissociation; his imitative faculty; and his automatic acceptance or suggestibility. This personal equation is influenced also by what might be termed his autonomic reflex formula, or what may be described more concretely as his own characteristic type of fear reaction. In this way hysterical dissociation results from the acute shock process as the simplest and crudest kind of defense reaction with its fixations of initial symptoms. The anxiety neurosis comes into being when the conflict takes on an ethical quality, due to the consideration of the various factors entering into the question of right and wrong, inadequacy, sense of duty as an officer, etc.

Neurasthenia, psychasthenia, and the other clinical types which I have outlined, each have, I believe, a mechanism capable of this kind of analysis, and present variations which can be clinically differentiated.

Two important considerations may be emphasized in concluding this brief outline.

First, war neuroses represent in general a compromise between a soldier's manifest duty and the pull away from this in the direction of self preservation. This compromise shows itself by one of the various kinds of war neuroses.

Second, the particular clinical variety shown in each case represents the personal response of the individual to the traumatic incidents which his nervous system has to meet and for which no adequate adaptation is possible except through a war neurosis.

# NEUROPSYCHIATRIC PROBLEMS AT THE FRONT DURING COMBAT

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**T**HE war neuroses as they occur in the French, English, German, Russian and Italian armies, if we judge from the literature and some personal observation with the French and English armies correspond practically exactly to those which were seen in the American army. There were observed, however, some features in respect to the type of reaction which the American soldiers displayed which will be of interest to describe and which differ to some extent from those seen at least in the English and French armies.

This difference in the reaction was more striking in hospitals situated at the front, although it was somewhat apparent in the base hospitals as well. In the English armies, for example, the favorite form of neuroses among the soldiers was hysteria, while officers for the most part suffered from anxiety states and rarely hysteria. This is alleged to be due to the difference socially and educationally between the English soldier and officer, a difference which in the American forces was not so evident for obvious reasons.

In the American army on the whole, it can be said that the most common forms of the war neuroses in both officers and men alike were anxiety states, neurathenia and psychasthenia, the proportion of hysterical cases on the whole being in the minority. This was true especially in the army neurological hospitals situated at the front, where the major hysterical manifestations were extremely rare. In the American army the reflex disorders described by Babinski, as occurring among the French in large numbers were comparatively rare.

I believe it will be interesting and instructive to go into some detail in describing the condition of men coming into the hospitals at the front, a few hours after the appearance of the symptoms which

determined their evacuation to these hospitals. On admission which was usually between the hours of noon and two in the morning the men arrived dirty, muddy, silent, trembling, tense, with drawn faces, and relaxed postures, seeking resting places at once on a bench which may be a part of the scanty furniture of the receiving ward of a front line hospital, on the floor, or leaning against the wall, if the bench was not available.

A careful analysis of the mental state of men under these conditions of course was out of the question.

They seemed however, in the main depressed, awed, anxious, afraid they had acquired some incurable affection, that they were paralyzed, or were losing their minds.

They were at once given a warm shower bath, some food and sent to bed whereupon they fell into a deep slumber which lasted usually a day or two, awakening reluctantly for food, the calls of nature and examinations.

After a study of the cases they could be divided for the most part, into:

(1) Those who presented actual hysterical phenomena, such as: aphonia, deafness, blindness, paralysis of the limbs, amnesia and confusional mental states, of which there were comparatively few; (2) those who had well defined anxiety states; (3) the neurasthenics; (4) the psychasthenics; (5) those presenting a psychotic reaction; and finally (6) those who are best described as examples of hyperemotivity.

As I have already stated the number of cases presenting definite major hysterical phenomena was small and most of the cases were those suffering from anxiety states, neurasthenia and psychasthenia. There were, however, a considerable number of cases which had not really yet reached the point of being definite neuroses. These cases were examples of hyperemotivity, and were by far, the most interesting and instructive of these cases with which we had to deal. They presented mental and nervous states, which I have spoken of as potential neuroses. Soldiers exhibiting these symptoms had arrived at a state of nervous instability, high tension and suggestibility, which on the one hand, made them susceptible of being restored rapidly and promptly to a fairly normal state, and, on the other hand, just as susceptible of acquiring symptoms through the agencies of suggestion and contagion, which in turn permitted the development of actual neuroses.

Practically all the cases received at the hospital and coming

under the classification of war neuroses presented the same history as far as the etiological factors were concerned.

Practically all had the same exhaustive physical experience and a large proportion of them the same emotional and commotional experiences.

Concussion experiences, that is to say those in which a man states that he had lost consciousness or memory after having been blown over by a shell, occurred in about 50 to 60 per cent. of the cases.

In the cases simply presenting a state of hypermotivity, the history showed that the emotional trauma was more frequent than concussion trauma.

Taking as a group, predisposition, both family and personal, was present in less than half of the cases. For example, in 342 histories in which the family predisposition was studied, it was found that it was entirely negative in 195 cases and positive in 137 cases, as to insanity, cancer, tuberculosis or nervous manifestations in father, mother, sister or brother.

A study of the histories of these cases in relation to previous mental or nervous diseases showed that in over 50 per cent. of the cases there was an absence of any previous nervous disorder.

In 320 cases in which the previous history of the individual was examined it was found that in 174 instances the history was negative as to nervous disorders, while in 146 cases there was a history of nervousness, nervous breakdowns, nervous temperament, phobias, traumatic neurasthenias, chorea, fear of the sight of blood, frontal headaches, epilepsy, bed wetting, sunstroke, delinquency, dizzy and fainting spells, hysteric attacks and drug addiction.

It is not difficult to understand why those who showed a clean bill of health previous to their war experiences developed states of nervous instability which rendered them susceptible to the development of neuroses. The experiences at the front in combat were so intense, so strenuous and so exhausting that one acquired in a short time a state of nervous instability which in civil life would require months or years to bring about.

The symptoms presented by the soldiers who suffered from hypermotivity were characteristic when under shell fire. They were unable to "carry on," they felt weak, were dizzy and afraid, they sought places of safety, desired to run and hide, or stood still and shook; they lost their heads, they fell down from weakness at the sound of nearby exploding shells; they expressed themselves as afraid

of shells and slept poorly. This condition incapacitated the soldier and rendered him unfit for front line duty and was the cause of his being evacuated to the rear. These symptoms may be recognized as the crouching and flight reactions of fear.

When these soldiers arrived at the hospitals they presented little or no symptoms, except evidence of great fatigue, some exhaustion, more or less marked general tremor, and a state of apprehensiveness that they would be sent back to the fighting lines. They acknowledged that they could not stand the shells. There was no actual neurosis to be recognized as such. The condition appeared to be an intense reaction to fear, an exaggeration of the physiological response to this emotion and entirely uncontrollable, in spite of all the influence brought to bear upon the individual to overcome it, such as crowd psychology, amour propre, patriotism and all those factors which help a man to maintain a correct position with his associates.

A particularly interesting feature of the condition of the cases in general coming into the army neurological hospital is their state of great suggestibility.

They reacted, with amazing promptness to the suggestions which were made by the medical officer upon their admission to the receiving ward. At once there was pronounced lessening of the tension and a distinct relief observed in the anxiety state which the soldier presented.

The hysterical manifestations yielded readily, and in the majority of the cases within a day or two after admission. In fact, after rest, baths, abundant food and treatment by suggestion, in 60 to 70 per cent. of the cases the symptoms disappeared and the men were fit to be sent to their organizations within ten days to two weeks.

If the soldiers restored to a condition which it was considered fitted them for front line work again, were allowed to remain in the hospital before they were evacuated, a further reaction occurred. A certain percentage of these soldiers began to complain of physical ailments such as pains here and there, digestive disturbances, ill defined nervous systems and a mental attitude of doubt as to there being well enough to return to their organizations.

The symptoms can be best described as being in the nature of hypochondrical manifestations, and these no doubt resulted from the opportunity to think over the dangers of the front in comparison with the safe and comfortable conditions under which the soldiers found themselves, and the influences of contagion arising from associations with others who were destined to go to the rear. These

symptoms increased in intensity the longer the soldier remained in the hospital. The plan was to evacuate these men at once upon their recovery, the object being to anticipate the development of these phenomena, but in an offensive the difficulty of finding the location of their organizations, and the scarcity of transportation made it impossible always to achieve this end promptly.

The fate of those evacuated to the rear is another interesting feature of the subject. When the soldiers are sent back to the rear from the Army Neurological Hospital, except for a small number exhibiting tics, there are rarely any pronounced hysterical phenomena observed, most of the cases being examples of anxiety states, neurasthenia and psychasthenia.

At the base hospital, however, may be seen a variety of hysterical manifestations in considered numbers, such as stammering, mutism, some paralysis, gait disturbances and amnesias.

There are two pictures diametrically opposed, one at the front, the other at the rear.

What is the explanation? The cause of this I believe can be found in two factors. First contagion plays an important role. On the way back through evacuation and camp hospitals and even base hospitals, before reaching his final destination, the soldier is exposed to contagion and suggestion, by coming in contact with those who have already developed neuroses. Secondly, in a base hospital situated a long distance from the front, the horrors of the front are emphasized, and as a result of the opportunity to introspect, there develops a reaction which expresses itself in the creation of symptoms which incapacitates the individual for front line duty.

This reaction is less likely to occur in hospitals situated at the front where it was generally understood that after a few days the soldiers would return to their organizations at the front, that they would be cured promptly, and where the mechanism of the causation of their symptoms was explained to them before fixed neuroses had actually developed.

The patients at the front were in a nervous state which can be termed fluid which on the one hand rendered them susceptible of being restored to a normal condition readily, or on the other hand, if not properly dealt with and allowed to be exposed to pernicious suggestion and contagion permitted the development of fixed neuroses.

Finally a word as to another reaction which is observed at the front, namely, a certain psychotic coloring of the symptoms. A small



number of the patients presented symptoms suggesting dementia precox. These soldiers were negativistic, paranoid or hallucinatory. They assumed attitudes and showed no interest in their surroundings. They recovered in many instances however, in a few days, and to all appearances seemed perfectly well.

Sometimes there was a manic-depressive coloring to the symptoms. In some instances the patient presented a state of excitement with flight of ideas, some incoherence and great restlessness; in others there was simple depression, in which the patient was preoccupied, silent, the countenance sad, the thoughts dwelling on the horrors of the battle field.

From these symptoms the patients recovered as promptly as from the other conditions spoken of as the war neuroses.

These reactions are especially interesting as illustrating the character of the soil upon which is built the particular form of neuroses or psychosis. When a soldier passing through experiences which in some produce hysteric, psychasthenic, and neurathenic phenomena, hyperemotive states and in the cases under discussion, symptoms suggesting certain definite mental disorders what is the explanation? It seems to me it is due to a certain mental makeup of the individual, which in the case where the symptoms resemble dementia precox indicates perhaps that the individual if not a potential precox, at least had a precox personality and in the case where the manic-depressive symptoms occur, that the individual perhaps may be looked upon as either a hypomanic, or as having a manic depressive make up.

These reactions represent transient psychotic states developing in individuals with abnormal mental make ups, the result of severe emotional trauma, in which the elements of fatigue and exhaustion play a certain role.

# THE EMOTIONS AND THEIR MECHANISM IN WARFARE

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**I**T IS alleged that the emotional strain of the war is the direct cause of many functional disturbances of long duration seen in the soldiery. There are strong reasons against this interpretation. In the first place, the number of cases showing emotional perturbations apart from those having organic disease or definite toxic conditions is comparatively small. For instance, the figures of the Army Centre of Epernay.

Among 90 patients occurred emotional symptoms due to:

Emotional confusion .....	1.3%
Commotion .....	5.10%
General causes .....	2.5%
Alcohol .....	2.5%
Various incidents of trench life.....	5.8%
Confusion .....	15%-31%

In army zones—1600 patients of which:

Mental .....	45%
Psycho-neur .....	45%
Org. N. D. ....	10%

If it is contended that most of the emotional cases are undetected in the army centres and are evacuated in the Interior, figures again show the contrary, for the proportion of cases in the Army Centre of Marseilles is as follows:—

Out of 1249 cases of functional nervous disorders only 70 were classed as emotives. But it is proper to observe that there must have been several whom other clinicians would have so catagorised among the 102 classed in neurasthenics and psychasthenics, and even among the 143 commotiones.

At Maison Blanche out of 305 patients 20 were diagnosed as emotives, that is, 1 per cent.

At Rennes emotional syndromes diagnosed in 22 per cent.

At Bourges out of 10,000 patients emotivity was diagnosed in 13 per cent. but these included also asthenics.

All these figures show that the relative number of emotional cases to those definitely hysterical in nature and rapidly cured is very small.

Further, patients of the emotional type, such as those which have been called "Psychasthenics," are able to remain in the firing line without greater inconvenience than they suffer in civil life. Indeed they do not break down until they are given responsibilities too great for them to bear.

It must always be remembered that really severe fear always shows physical signs, pallor of the face, changes in the pulse, sweatings, pilomotor reactions, pollakiuria.

Tremor, when it occurs, does not possess any characters which enable us to distinguish it from an assumed tremor, and is a very poor ground on which to make a diagnosis. Tachycardia is not a diagnostic criterion, because a great many patients develop a tachycardia who are not at all in a state of fear. They do so from cardiac exhaustion, intoxication or disorder of the thyroid gland, none of which may have anything to do with the emotions as regard their origin. True anxiety states tend to make themselves felt during sleep by modifying the dreams and even by creating insomnia.

Indeed, in some instances, the patient shows himself capable of overcoming his dread during the day but he is overcome by it when his volition is in relative abeyance during sleep. In these cases the patient is awakened by terrifying dreams and gradually loses condition and power of resistance in consequence. It is a very different state to that of the alleged emotive, but in reality hysterical, type.

When these last cases are genuine they must be completely differentiated from asthenic conditions. The real mechanism is an associational fear psychosis.

The importance of the distinction in practice is that such cases are readily curable but only by proper psychotherapy, whereas it is perfectly useless to cure by psychic means symptoms which are the result of asthenia whether constitutional or acquired. These latter patients are, in any case, unfit for hard campaigning because of their physical weakness. The men we are considering, however, are those who break down suddenly in consequence of what is alleged to be an

emotional shock or the culmination of prolonged emotional strain.

Among these are two distinct types, namely: 1. Those who are simply fatigued, and of whom, in consequence, the power of inhibition has been lowered by the mechanism alluded to on page 20. 2. Those in whom there is no question of exhaustion—the psychogenetic cases. The real mechanism of this latter type is the conditioning of the mental attitude by a belief that they are no longer capable of withstanding what they have learned to believe is the exceptional psychic strain of life at the front, i. e. by suggestion.

It is this vicious mental attitude which has to be changed in order to cure the condition. It is much easier to do this in the case of soldiers recently affected in this way, than in the case of civilian patients with associated fear psychoses and anxiety states of long duration. And yet, it can be done in these latter patients in a comparatively short period of time by a proper understanding of the patient and a re-conditioning of his reactions toward the situations which have hitherto provoked dread. Such instances are the following, shortly summarized:—They are types of accidental phobias of intellectual order which are derived from a misunderstanding due to auto-suggestion, and easily curable.

Thus, in a lady without the least psychopathic heredity, who for 8 years had severe claustrophobia accompanied later by agoraphobia necessitating a companion when she left the house, a cure was effected in ten days. This was done by finding out the circumstances which had induced the first symptoms and then re-conditioning the patient's reactions by compelling her to explain them in writing, by persuasion of the most impersonal indirect kind, and finally by psycho-motor exercises directed toward overcoming one particular difficulty. viz: that of crossing alone a wide space. (In full in *Internat. Clinics*, Vol. IV, 1919, *Management of Phobias and Obsessions*.)

Again in a lawyer of 28 who had always been obsessed by a fear which he could not define, and a propos of no particular event or circumstances, it was ascertained that his dread originated in the teachings of a relative who had done all he could to inculcate the boys he dealt with that, "fear of the master is the beginning of wisdom" and so successfully that he poisoned the patient's life. In addition there was a highly charged psychopathic heredity on both sides of the family, and two brothers seriously defective, so that the patient strongly believed that his fear was a product of a degenerate constitution

causing moral cowardice which the great efforts he had made in subjecting himself to all sorts of danger had failed to overcome.

Nevertheless he has remained well under very trying professional conditions for 8 years as a result of the re-conditioning of his attitude toward himself which was effected in less than two weeks time. (In full, *Illinois Med. Jour.*, 1914, *Genuine and Spurious Psychotherapy.*)

A farmer lad of 23, not of high mentality, impressed by a notion of his own inferiority, made four attempts at suicide after a long period of seclusiveness and mental depression. He has now for 6 years been a successful producer on his mother's farm as a result of a few days resetting of his ideas, during which he was taught the error of his inductions about onanism and learned to respect himself once more. (In full, see *Journ. Insan.*, 1914, *Prevention of Suicide.*)

The fundamental difference between the mechanisms of the two types of phobic obsession is that in the one case we find an emotional pre-disposition of the patient's inherent in the constitution of his organism which compels him to react unteleologically to circumstances which the average man deals with without serious perturbation. The behavior of the panto-phobic of this kind is only an attenuated example of the very easily excited uncontrollable phobic reaction of the patient who is in a state of intoxication such as one so commonly sees in the eruptive fevers, in chronic alcoholism and in other forms of mental confusion, such as those ensuing upon malnutrition or exhaustion, where the confusion indeed may be very slight, but where the phobic reaction may be most incommoding. (See *Management of Confusional State Internat. Clinic*, 1917, Vol. II, Line 26.)

A fact which points to another important element in the symptomatology of the phobic is the wish to conceal his foible from others, his belief that his morbidity is very grave, his dread that his disease will progress to a degree constituting insanity, his fear of discovery. In many cases there is added to these feelings that of shame at his own weakness concerning what he feels to be an absurdity. In such cases the discovery of the mechanism of origin of the particular phobia is an important element in enabling the patient to comprehend the real nature of his condition.

It is only when this is understood he is able to view his reactions rationally, almost impersonally. He learns to see in what way they have occurred, and is thereby enabled to forestall them. This must not be done by a cowardly avoidance of the situations which provoke

the phobia, but by facing such situations with a clear and open mind and by analyzing his own relationship to the situation each time it arises. In this way, the situation rapidly becomes shorn of its emotional aspect, for the patient has learned to view it scientifically, whereupon the morbid affect, which it has formerly aroused, ceases.

This method which I have always found successful, is essentially very different from the former methods in which these patients were treated, such as emphasizing the lack of gravity of the phobia, by pooh-poohing it, by ridiculing it, or worse still, by attempting to distract the patient in occupations, recreations, or worst of all by hypnotism, isolation or rest-cures. These methods, so far from being beneficial are harmful. The rest-cure for instance gives the patient more occasion to brood upon his trouble, and even hard work and occupation fail to arrest the morbid process. Indeed, in some instances, intense occupation only gives opportunities for the patient to multiply the circumstances capable of provoking his phobia, while hypnotism further aggravates suggestibility.

For instances, in one exceedingly hard working lawyer, his phobia of the number 13 and of the day Friday so fastened itself upon him that there was scarcely any hour of the day which he could not associate with this superstition by methods of addition, subtraction, multiplication and division of numbers, so that the more engagements he made the more he had to struggle against this tendency. In another case, also a lawyer, intense application to study only made more prominent his consciousness of the difference between himself and others.

None of these methods of treatment aim at the cause of the condition as all medical art should. The *essential cause of phobias* of this type is *a conditioning of the affective reaction toward a given situation because of a mistaken notion regarding it*. The mechanism is most simply and clearly illustrated by the reactions of the animal in whom a given signal has always been associated with a given experience.

**THE PRINCIPLES OF CURE.** Now, each of these patients suffered a true emotion of fear during the periods in which there was brought to consciousness the situation which was in each case legitimately enough the subject of dread on account of the way in which it was regarded.

The principle was no different from that of the way in which the dog in Pavlov's experiment learned to regard with dread the signal which warned him of the arrival of his master bearing a whip

with which he would be beaten. The signal immediately provoked a severe state of fear with all its physical accompaniments. But this reaction was very easily re-conditioned into a reaction of pleasure at hearing the signal after re-education of the dog taught him that the warning was no longer one of a beating but of a piece of meat.

On the same principle, the patient who has hitherto feared to cross an open space because of the dread that his heart may give way and that he may be run over by a passing vehicle, and who develops the physical reactions of terror in consequence, can, when he is taught that the basis for his dread was a false one and that there is no danger of his fainting, very quickly learns to cross that open space without qualms.

Even when this more natural type of substitution of one belief for another is not available, as for example when the patient's fear is well founded, yet his reaction toward the fear provoking situation may be changed by inbuing him with a different attitude toward it. This is really quite a commonplace procedure, for it is the means by which the vast majority of men willingly encounter the great probability of severe injury or death in the present war. The attitude of the physical coward is replaced by that of the patriotic hero. Indeed in most cases the ordinary solicitations such as those of esprit de corps suffices to secure the mental attitude of bravery. It is in the cases where the usual motives have not sufficed and where the emotion of fear dominates the patient that the psychiatrist is called upon to exercise his skill in providing the patient with insight and motives powerful enough to change the way in which he looks upon his own relation to duty, country and death. Here again the psychotherapist is only performing the kind of task he is asked to perform in civil life, namely, the re-conditioning of a patient's reactions toward difficult situations which the usual motives of business, social or family life have not been able to effect.

It must be remembered that the majority of patients who present emotional reactions of this type tend to exaggerate them in order to justify an apparent cowardice which they themselves honestly reprehend in many instances. They, so to speak, nourish their emotional reaction by keeping that which stimulates it in the foreground of their consciousness. They become beset by that which disturbs them. Indeed they take a certain pleasure in watching the consistency with which they start at a sound, recoil at a movement, tremble at a loud word. Some of these patients are of the mythomantic type,

and are really playing a role without being themselves quite aware of the fact. (Journ. of Criminal Law to appear.)

It must always be remembered that an emotional reaction to sudden and unexpected fright is natural although quite variable in different individuals. It is only its persistence that is abnormal. This persistence however, is not due to the quality or gravity of the emotion itself, but is due to the fact that the state is so to speak fostered by the patient who has allowed himself to believe that he can no longer control every childish reaction which he shows, and thus persists in playing out the role he has assumed.

The following military cases should be studied in relation to the foregoing factors and to those which follow.

*Acute Emotional Syndrome.* While waiting for the assault of a village perched on the top of a hill, the despatch riders of the 46th R. I. placed themselves under a rudimentary shelter in the advanced trenches.

The regiment had just had the benefit of 6 weeks rest and had taken its position during the night. They had been there a few hours when a shell plunged into the shelter, struck and beheaded a man, and luckily for his neighbors buried itself in the soil without bursting. Almost all the survivors came to themselves immediately. One of them alone, a hair dresser in civil life, now a sergeant, came in great haste to the dressing station at about 150 metres distance downhill and sat cowering in a corner. There he gave free course to his emotion. He wept abundantly. He was agitated with intense trembling. It was not a faint tremor, but consisted of large oscillatory movements of the upper limbs and almost of his whole body.

Even after resting for a few moments his respiration was very rapid as well as his pulse, 150. He related in broken and hurried words what had just happened to him. He cursed the enemy, spoke of his beheaded comrade, of the assault which was imminent, of his comrades waiting for him. Visibly he was making great efforts to recover. He was helped by reassurance and stimulants.

Suddenly he got up and though still trembling, ran away to resume his post.

When he was seen two hours later a bullet had gone through his thigh.

Although his wound was not severe, he has succeeded in evading active service. Two years later he had not yet been sent back to the front.



These patients all show tremor at some time or another. Their tremor is wide in extent, and stops during distraction. Its differentia are fully gone into in my forthcoming book in the chapter on Tremor. It is very significant that the patient can be taught in a single sitting to control these provoked tremors, when the method of powerful faradism is intensively applied. In most instances the tremor can be got rid of without this unpleasant procedure, but the treatment then requires great skill on the part of the psychotherapist. For that matter so does the application of painful electric currents, the manner of its use being much more important than the fact of its application.

*Perseverating Pseudo-emotivity.* In many instances of pseudo-emotional behavior, the patients at first really suffered from uncontrollable severe emotional reactions due to toxic or fatigue states. They are still more often the result of emotion. The patients are perseverators, then, who having had formerly a real justification for their behavior, continue to think they are still justified in letting themselves give way in an exaggerated fashion to every solicitation. Most of them do not themselves realise that the physical state which caused their earlier disturbance has long ceased and that their reactions have become illegitimate. It is a delicate task to demonstrate to them their error and to persuade them to cooperate in their restoration to health.

*Influences Adverse to Cure and Welfare of These Men.* The manner in which this task must be approached is unfortunately dependent upon many considerations quite outside of the sphere of psychotherapy. Such are those of the policy of the army toward functional nervous diseases. Such is that of the policy of the country toward cases of cerebral commotion.

Each of these influences bring to bear upon the soldier powerful suggestions which may seriously interfere with his efforts to get well and which may indeed encourage his efforts to remain sick. Popular articles and conversations about "shell-shock" are most detrimental in this respect. They should be discouraged if not forbidden during the war at least, and if they are permitted, the newspapers should cooperate in refusing to print those not written by psychiatrists authorized by the war council to do so.

But even within these limitations it is possible to cure these men, and that perhaps without the enormous expenditure of money in the elaborations of such an organization as has been adopted in England in order to compensate for the grievous leakage which was permitted

during the first three years of the war on account of the attitude of the country toward functional nervous diseases.

*Simulation of Emotivity.* It must never be forgotten that the condition of emotionalism is apparently easy to simulate, and that such patients viewed superficially appear quite unfit for service. A number of instances of this syndrome, afterwards confessed to have been deliberately simulated, were returned among the prisoners of war repatriated as completely incapacitated for further service. Under ordinary conditions the opportunity of receiving confessions of this kind of course is not permitted, as it is not to the patient's interest to admit that he allowed himself during the war to remain unnecessarily in hospital by maintaining artificially an illness of which he could have got rid long before.

*The Mechanism of Some Fear States.* Everyone is familiar with the different ways in which different individuals react to impending accident. For instance when an automobilist precipitately crossing the street has to suddenly stop his car with the emergency brake in order to avoid a vehicle which he had not at first seen, some spectators may gasp with horror, some may shrink aside, some may even scream out. This is because their imagination pictures what might have happened had the brake not been applied. It may be called a morbid directioning of the imagination; it is the kind which produces timorousness or pessimism. Other spectators on the contrary, may be rather impressed by the speed and skill of the driver in averting the accident which might have happened to one less competent. This may be regarded as a wise directioning of the imagination. Other spectators may pass by with complete indifference. These are of two kinds. One kind are incapable of feeling emotion. They are the lymphatic or indifferent persons. They are not common. Far commoner is the type which is incapable of feeling emotion about what may happen to other people. It is only when they, so to speak, place themselves in the position where the accident might happen to them that they feel alarmed. These people are very numerous.

Most people however become so inured to the usual alarms of the current life that they cease to manifest, and often indeed cease to feel the emotions which alarming incidents first excited. The great majority of the soldiers find that their first dreads gradually cease. The cause of this is an intelligent use of the imagination, the man reflecting to himself that, so far from the chances of his being injured being considerable, it is indeed very slight at any given moment. Even when

he knows that in the long run he is bound to be killed or injured other motives can be brought to bear regarding each individual expedition. Of course, if he considers the number of men who have been killed without fighting at all or the number who have been killed in their first combat, he could feel only fear. But when, on the contrary, he considers the number of men who have survived a score of combats, and when he thinks of Guynemer who was successful in 54, he sees no reason for despair. The same reasoning is cogent in the case of the Infantry and few men feel that an impending battle is to be their last.

In the case of desperate enterprises however the case is a different one. Most of the men had they reflected upon this particular aspect of the case would recognize the high probability of their being killed. But other motives remove the fear of this. Such motives as the lust of battle, the desire for glory, feeling of indifference to danger, a high sense of duty, belief in a happy chance. Sometimes indeed the shame of appearing to be afraid. Each has its share in inducing the warlike spirit in the prospect of almost certain death.

Collective suggestion is a most important factor in maintaining high courage in troops. This, of course, largely depends upon the officers. However men who enter the Neurological Services on account of bombardment hysteria do so in the main because the cravenness of the individual has overpowered the influence of the collective morale. They can no longer be appealed to on the ground of *esprit de corps*. In some instances however, it is only because the man feels he has a legitimate excuse for abstaining from the dangers of battle. The important business of the neurologists is to be able to demonstrate to such men that the excuse in which they believe is not legitimate; that they are not indeed suffering from a physical disorder of the nerves but that they are mistaken with reference to the real motivation of their illness. With rational persons this is all that is necessary, but there are some men with whom reason is less powerful than the appeals of imitation and suggestion. The most powerful weapon against these men's disorders is the spirit or morale of the hospital such as has been so well illustrated in the preparatory treatment of the men at Salins. A full account is given in my book *Disorders of the Nervous System in Warfare* (Bealsiston to appear).

In some instances the men are accessible only to the direct effects of unpleasantness, being neither of a reasonable type nor amenable to gentle collective suggestion, and being imbued with a desire to escape the rigours of warfare, they can be appealed to best by a

rigorous treatment which shows them that the service has its compensations after all. There is more than a suspicion of dishonesty of intent in most of these cases, but it is not wise for the doctor to declare openly the guilty motive behind the men's behaviour. The man cannot become a good soldier unless he maintains his self-respect or perhaps rather the ability to hold up his head before his fellows. He does not mind feeling that the doctor knows he has not been quite honest with himself, but will be only too glad to have a chance of getting out of the affair without probable disgrace and he will do his very best to place himself in the recovered list for a doctor whose consideration he understands, and whose insight and firmness he respects.

However, it must not be forgotten that in very many men whose morale flinches, it does so because of a reduction of the resiliency of the organism, that is, physical wear and tear, which prevents the man from responding to a difficulty he formerly surmounted with comparative ease. The greatest attention must be paid at the beginning of each case to the signs of the milder functional incapacities of circulation, internal secretion, metabolism and lowered neurone reaction. Even the disorders of the associational systems must not be attributed to pithiatism. They may be dependent upon functional inadequacies of purely physical nature. An example of this mechanism is the following case extracted from my discussion of the management of confusional states read to the American Medical Psychological Association 1916.

A woman of 35 was referred by Dr. Ada Thomas because she became disturbed about some botanical investigation she had conducted successfully, which she could not seem to finally formulate although she had made a preliminary report to the satisfaction of superiors. She would keep on starting experiments, but they did not seem to go right. She felt dazed and as if everything was out of joint. The work seemed easy and yet she could not accomplish it. As there was neither insomnia nor loss of weight, she felt that her trouble was psychological. But her reflexes were exaggerated, her hand trembled, her eye-balls were prominent with congested lids and the breath was very foul. However she persisted that it was temperamental as she had had an attack as a teacher some years before, and thought that she was prone to it as a child. She was hyper-conscientious and had too much ambition for her strength.

Though her blood pressure was but 128 her diet was lacking in

succulence, and she had been taking extra milk but without causing constipation. Thinking that improved metabolism might help her I prescribed a week's vacation with golf, a more succulent diet, and a mixture of hormones. In a few days the blood pressure fell to 105, diastolic 55, and she "felt like doing nothing at all and without mind" so that the golf was stopped and she was put to bed. Whereupon the blood pressure after five days, slowly rose to normal, the reflexes diminished, the tissues were firmer, but the pulse rate mounted over 100, going to 120 some times and slight exophthalmos appeared with the sign of Moebius. There were no sweats, and the breath was less foul, she felt clear mentally. Mixed hormones were stopped. She was then given secretogen and advised to return to work the next week, which she has accomplished satisfactorily ever since.

That thyroid and adrenal disturbances must be quite usual in hyperemotive individuals we have experimental warrant a priori and indeed a considerable number of observations of long continued tachycardia show a morning maximum which points to hyper thyroidism. A detailed study of a series of these cases is much to be desired. The war provides an opportunity which should not be neglected.

It is only by thorough attention to the details of mental examination that one can pronounce upon the character of such manifestations, many of which can be successfully imitated, and many of which occur from a purely psychogenetic mechanism. Glaring examples are the Ganser syndrome, and some of the amnesia and dissociated states in which many clinicians have formerly shown great credulity. Too great caution can not be used against allowing oneself to find without due criticism some ill-understood syndrome which has filtered into the neurological literature from the garrulous report of some armchair clinician usually from beyond the Rhine. Even the law of regression of souvenirs has been shown to be without proper basis, as the beautiful study of post-commotional amnesia by Mairé and Pieron clearly demonstrates.

# THE MANAGEMENT OF PSYCHO-NEUROSES IN THE CANADIAN ARMY

BY LIEUT.-COLONEL COLIN RUSSEL

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**T**HE management of the Psycho-Neuroses by the Canadian Army Medical Service, begins really in England and is carried on in Canada. In order to discuss the management of these conditions in the Canadian Army, however, it is necessary to consider the whole system that was in vogue under the Royal Army Medical Service in France. The Canadian Army Medical Service, as well as all parts of the Canadian Army in France, were an integral part of the British Army, and as such came directly under that organization.

It is not my intention to consider in detail the clinical form of the Psycho-Neuroses, but as is well known, these conditions, under the term "Shell-shock," quite early in the War became a very serious medico-military problem in the British Army as well as in the Armies of all the Allies—to say nothing of the armies of our enemy.

Owing chiefly to the fact that these conditions were not fully recognized in the beginning, many cases were evacuated to England which would not otherwise have been, and the depletion of manpower in the front line from this cause became a very serious item. Some confusion was, I think, also caused by the result of anatomical investigations carried out by Major Mott, who showed that in soldiers killed as result of explosions without showing external wounds, minute hemorrhages and multiple cell changes in the nervous system showed the effects of concussion and that the cause of death was in the nervous system. This condition, which was really shell concussion, was very soon confused with the clinical condition which received the apt term of "shell-shock," but which on closer examination was shown to be rather a physiological or psychological condition without any organic anatomical lesions. The first really systematic effort to handle this problem in France was the establishment of special neurological hospital in the casualty clearing line and the issuance in the summer of 1917 of the Army Form W-3436, and the instructions to Medical

Officers which accompanied it. This refers to officers and other ranks who without any physical wound became non-effective from physical conditions claimed or presumed to have originated from the effects of British or enemy weapons in action. The medical officer who in the first instance dealt with such a case, where it was necessary to transfer him to the special hospital which had been organized in the casualty clearing line, was instructed not to record any diagnosis, but to enter on the field medical card the letters NYDN (not yet diagnosed nervous). The field ambulance through which this individual was evacuated was responsible for bringing him to the special hospital. These hospitals very soon got the name of "Shell-shock Hospitals." If any case inadvertently arrived at the Base without having passed through the special hospital, the officer commanding the base hospital had to retain that case and notify the local administrator of medical services of the army concerned.

The expression "shell-shock" under no circumstances was allowed to be made use of verbally, or be recorded in any regimental or casualty report, or in any hospital or any medical document, except in cases so classified by the order of the officer commanding the special hospital.

In all these cases admitted to the special hospitals and in those who through inadvertence slipped through to the Base hospitals, the Army form W-3436 had to be made out. This form after giving the man's name, number, rank and unit, stated that the individual had been admitted to the special hospital on such and such a date, through such and such a field ambulance. A description of his condition on admission followed, with a copy of the man's statement as to how he came by that condition. This was sent immediately to the officer commanding the man's unit, who, after looking into the case gave a written statement whether or not, in his opinion, the man had been under exceptional exposure (that is, exposure of a specific nature more intense or prolonged than that in which others in the same area of operations endured without being similarly affected thereby), specifying briefly the nature of that exposure. In the case where this exposure was regarded as not exceptional, this form W-3436 was sent by the O. C. of the unit directly to the "A" (Adjutant's) Branch of the division, and it then became a matter for Army Headquarters' investigation. If the exposure was regarded as exceptional, the form was returned by the O. C. of the unit to the O. C. of the special hospital, who was then responsible for ascertaining that any points which

appeared to require investigation were brought to the notice of the Army Headquarters before the case was disposed of. It was his duty also to notify the D. A. G. of the 3rd. Echelon General Headquarters of the classification and final disposition of each case.

The work done in these special hospitals was wonderfully effective. The following is a report for the month of August from No. 3 Canadian Stationary Hospital, where the special Neurological work was being done by Captains F. Dillon and Lawson—both the R. A. M. C.

*Number of Cases admitted during August, 1917*..... 132

*Relative proportions of Cases Admitted:*

Shell Shock Wound .....	75 or 56.8%
Neurasthenia Sick .....	57 or 43.2%

*Disposal of Shell Shock Wound Cases:*

To Duty .....	64 or 85.3%
To Base .....	11 or 14.7%

*Disposal of Neurasthenia Cases:*

To Duty .....	32 or 56.9%
To Base .....	25 or 43.1%

*Disposal of Both Classes of Cases Combined:*

To Duty .....	96 or 72.7%
To Base .....	36 or 27.3%

TOTALS FOR FOUR MONTHS:

April, May, June, July, 1917, before the introduction of Army Form W-3436.

Admissions .....	1341
Discharged from Hospitals .....	1173
To Duty .....	938 or 79%
To Base .....	235 or 21%
"Return" Cases .....	44 or 4.6%

It will be seen from the above analysis that 43% of the cases admitted into the "Shell-shock" Special Hospital are cases of Neurasthenia, that is, not caused by exceptional exposure but individuals



presumably showing relative impairment of power of endurance to the ordinary strain of war. Of these, 56% were sufficiently restored by treatment to be sent back to duty.

The remaining 57% of admissions are cases of shell-shock wound. These are the ordinary type of individual who have been subjected to exceptional exposure. In these you will see the prognosis is very much more hopeful, 85% being ultimately capable of being returned to duty. Of both classes combined, (the shell-shock wound and Neurasthenia) about 72 to 79% of admissions into the shell-shock division were made fit by treatment to return to duty. The remaining 20% to 30% were transferred to special hospitals at the base. About 50% of these were returned to some sort of duty in France. The remaining 50%, that is, 10% or 15% of the total, were evacuated to England. For a long time these went to the ordinary general hospitals. In the organic cases which required specialist's attention, such as Orthopaedic cases or wounds of the brain, the sorting out was done in France and the cases were transferred directly to special hospitals in England. It was a very long time indeed before the same recognition was given to the psycho-neuroses. The result was that they were passed from one general hospital to another, and by the time they did reach a Specialist, their condition was very firmly fixed and difficult to influence.

The Canadian Army Medical Service has, I believe, the honour of being the first to organize a Special Hospital for the treatment of these cases. This was established at Ramsgate in November, 1915, and was designed to treat both Orthopaedic and Neurological cases. The Granville Hotel was taken over and turned into a hospital. Its special facilities in the way of hot air baths, electrical baths, turkish and Russian baths and large plunge already established in time of peace, made an excellent basis from which to develop a mechanical therapy. We shortly added to this as an annex the Chatham School with its technical workshops, its grounds and gardens, all of which were used and developed for occupational therapy. Instructors in all lines of occupation, from motor-mechanics to cigarette-rolling, were picked out from among the wounded patients, and a very active occupational therapy was instituted. The beneficial result was most evident from the start. The Commanding Officer's Orderly Room almost went out of business. Breaches of discipline became very infrequent, and the morale among the patients was very much improved. Besides this all the splints and mechanical apparatus needed

in the hospital were made by the patients. In fact operating room furniture was made for other hospitals as well as our own and our surgeons had any special instruments made on the spot.

In the early days of this hospital, owing to its unique character and the fact that these patients suffering from functional disturbances of the nervous system had been so long in other hospitals where conditions were not understood, the clinical material was very extraordinary and the results obtained by treatment most striking.

In my opinion, it would have been advisable in the Canadian Medical Service in England, to have developed this one, or possibly two, Special Neurological Hospitals, and to have had all suitable cases segregated. However, in spite of my recommendations, the authorities did not consider this advisable, and the result was several smaller Neurological Clinics developed in general hospitals wherever there happened to be a medical officer with Neuro-Psychiatric training or inclinations. As far as the treatment of the men was concerned, this did not make any material difference, but owing to the relatively small size of the majority of these clinics it was not possible to use them to any extent as schools of instruction for medical officers in this line of work. This has recently, I believe, been remedied by sending Canadian Medical Officers for course of instruction to some of the British Special Hospitals.

To the number of War Neurotics that were evacuated to England from the Special Hospitals in France, there were always added a certain number who developed in England either previous to their going to France or on recovery from wounds or exposure to gas, and these were admitted to the Special Hospitals in England. It is impossible to form an estimate of what percentage were returned to duty from these Special Hospitals owing to the constantly varying conditions. In the early part of 1917, from the Granville Canadian Hospital, upwards of 60% of the patients who were admitted were returned to the front. With the establishment and proper organization of the Special Hospitals in France, this percentage was much diminished at a later period, as only the least hopeful cases ever reached England.

#### THE MANAGEMENT OF THE WAR NEUROSES IN CANADA

Major General Fotheringham, the Director General of Medical Services in Canada, who before the war was Associate Professor in Medicine at Toronto University, has shown the greatest appreciation

of the importance of this work and the difficulties to be met with in this department of the Medical Service, and has given us at all times his utmost support.

The principles underlying the treatment of these patients in Canada may be summarized as follows:—

- 1—The direct transference of all patients of this type coming from Overseas into Special Neurological Hospitals.
- 2—The segregation of patients of this type who had already returned to Canada for the purpose of treatment into these Special Hospitals, under the care of specially trained Medical Officers.
- 3—The retention of these patients in these hospitals until:—
  - (a) They are fit for some form of Military duty.
  - (b) They are fit to pass under their own control.
  - (c) They are discharged as having come to a termination of treatment.
- 4—At the termination of treatment, these patients appear before a standing Medical Board composed of Medical Officers of the Special Neurological Institution, and its decision is final in regard to:—
  - 1—(a) Either return to duty and re-classification.
  - 2—(b) Or discharge from service.

The re-classification of the soldier returned to duty from a Neurological hospital may not be altered except on the recommendation of the standing of the Medical Board of that Hospital, or of one of the other Neurological Hospitals.

- 5—In the case of a man discharged from a Neurological Centre to his own control, whose disability later recurs, we have arranged with the Department of Soldiers' Civil Re-Establishment that he be returned to the special Neurological Hospital for treatment. There is thus established a continuity of treatment and supervision which has been found most effective.
- 6—On discharge, the pensionable disability, if any exists, estimated by the Special Medical Officers who have had this patient under observation, who thus act as advisors to the Pension Commissioners in these cases.

Special Neurological Centres have been established in connection with the Military Hospital at Montreal, Toronto, Winnipeg and Vancouver. A fifth one is in the process of being opened at Halifax. These Centres serve their surrounding districts.

It is taken as an axiom that all functional nervous disorders are curable—provided that the desire for cure is present in the patient. It is, therefore, ordered that no soldier suffering from a gross objective functional disability shall be discharged from the Army. All such cases which continue obstinately resistant to treatment shall be sent to the Dominion Neurological Centre at Montreal for observation and final disposal. Hysterical conditions in patients warrant no pension or gratuity. Where hysterical disability is associated with lesions due to organic diseases, the hysterical manifestations are not to be taken in account in estimating the amount of pension. Well marked Neurasthenic conditions—even without objective disturbances—may receive a small gratuity, but the feeling is that it is not wise to give such cases a pension.

These special centres are located in specially planned pavillions which are a part of the General Military Hospital, so that we have available all laboratory assistance. Consultation with Orthopœdic Surgeons or any of the other Specialists is convenient, and the physiotherapeutic department with its baths, massage, electrical treatment and gymnasium are at our disposal.

The work that is being done by the Medical Officers in these Special Hospitals has been very satisfactory, and one can say that in this class of patient, which is probably the most difficult to deal with, they are turning these men out fit for civil life. The following is a synopsis of the monthly report of cases discharged during one month from a single Military Neurological Centre:—During the month 47 patients were discharged, 8 of these were suffering from organic injury, while some of these latter were improved and their pensionability lessened, not much was to be expected, and these cases will not be considered in the following estimate:—

39 patients who had suffered from Psycho-genetic disability were discharged during the month. The average estimated disability on admission in these cases was 67%. The average stay in hospital prior to their admission to the Neurological Centre was 15 months. The average disability for civil life on discharge from Neurological Centres was nil. 67% disability represents in pension money \$390.00 a year—supposing the man's rank is a private, and he is unmarried—so that the saving per annum, for one month's work in this Neurological centre, amounted at the lowest estimate to \$15,210.00, to say nothing of the gain to the country in turning these men back capable of productive occupation.

## RÉVIVALS, SEX AND HOLY GHOST

BY THEODORE SCHROEDER

**S**OONER or later all students of genetic psychology must face the important problem of supplying a psychogenetic understanding of religious experience, and of "spiritual regeneration." The remaining outline-descriptions of such movements as the Great New England Awakening will then seem hopelessly inadequate. We may read of jumping and shrieking, rolling and swooning, shouting and fainting; of laughing and catalepsy, wailing and singing; and of "inner voices" and "spiritual visions," but these are mere word symbols for that which is to be explained psycho-genetically.

If we are to understand these "mysterious operations of the Holy Ghost" and their resultant "inward miracle of Grace" we must have more detailed observation and more exact descriptions. Of course, the best of all would be the re-enactment of those scenes under the very eyes of observing psychologists. Then, in terms of what is already known we might be able to explain and describe that "miraculous regeneration" by which the individual is invested with an instalment of divinity.

As a boy I attended a few western camp-meetings, but the uncritical observations of that period, and the present memory of these are both inadequate for present purposes. I only recall that we youngsters all had a conviction that at camp-meetings "more souls are made than saved." I thought of Billy Sunday's revivals; but these are too consciously controlled to give the "Holy Ghost" sufficient freedom to perform such unseemly miracles as accompanied the work of Jonathan Edwards and his immediate successors. It is in its most exaggerated expression that one can hope to get the best view of what is going on. I observed another revival<sup>1</sup> but found it void of that "divine spark" and of everything that distinguished the Edwardian awakening. In the midst of such difficulties some one told me of revivals conducted by several negro evangelists, each rechristened

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1. Hours with a revivalist. A report from the psychologic viewpoint \* \* \* with a bibliography of the author's essays on the "Erotogenesis of Religion," New York. Truth Seeker Co., 1917. Repub. from: Seven Arts, Sept., 1917, and Truth Seeker, 44: 577-9.

"The Colored Billy Sunday." I was assured that there I could see a reproduction of all that the New England revivalists had produced. At last my hopes were not disappointed.

#### GETTING RIGHT WITH THE AUDIENCE

First, I went to the pastor's home. I told him that I was a "heathen" void of religion, but interested in the scientific study of religion. With equal frankness, I told him of my tentative working hypothesis, viz: that religious experience is essentially a sexual ecstasy. He demurred. Then the parson was asked to point out the difference between a sexual ecstasy and the work of the Holy Ghost. He assured me that there was all the difference in the world, but that the difference could not be described. It must be experienced to be understood. I deemed it inexpedient to press the matter further. At another time I may report a number of interviews wherein this subject was discussed with some of his converts and with some of the clergy who assisted him.

In my first evening at this church, arm in arm, the parson and I walked up the aisle. Declining a seat behind the pulpit I sat by the side of it, some distance away. I was the only white person in the audience of about 500 negroes. The parson told the audience why his "distinguished white friend" was present, and poked fun at my thinking that I could learn anything about religion by scientific study. He told them that I claimed to have no religion in me, but he knew better. During the opening hymn he had seen my foot patting time with the music, and therefrom he knew that I was ignorant of how much of the Holy Ghost I really carried around. Practically every evening some good natured belittling of my scientific study of religion contributed to the mirth of the audience, and I believe promoted its comfortable adjustment to my presence.

It is with deepest regret that I confess my inability to suggest a vivid, living, moving picture of the extraordinary scenes that I witnessed. At the critical periods, there was so much excitement in various parts of the church and all at the same moments, that no pen can portray it. Therefore I must content myself with describing in a fragmentary way the behavior of only a few of the many persons who came "under the power of the Holy Ghost." Those who possess a very vivid imagination may, with a multiplication of the individuals whom I will describe, succeed in reconstructing something like

the real happenings. First, however, I will record a few observations, general in character.

#### WHY REVIVALS REVIVE

One of my first surprises was the discovery that the greatest religious excitement did not come into being at the time when the pastor was most energetic in his denunciation of sin and satan. On the contrary, the greatest emotional crises came into being, when the revivalist was least concerned with theology or morals, and most completely abandoned to the expression of his own intense emotions. At their highest, his emotions seemed quite void of ideational content. He simply jumped and bawled. I can adequately describe his apparent condition by reference to only one other human experience. It seemed to me very much like the uttermost of sexual orgasm.

The mere example of the pastor in abandoning all emotional self-restraint seemed to bring results. The prestige of the clergyman, the feelings of sanctity associated with the place, and the superhuman interpretation generally accorded to such events, seemed to lend courage for the liberation of repressed emotions. All this combined with the pastor's example eliminated from the audience the inhibitory fear of social custom, and of possible social disapproval. Billy Sunday, by denouncing the first outbreak of emotionalism in his audience, keeps the inhibitory influence effective. Among these negroes, as elsewhere, I noticed a like subjectivism manifesting itself in the less violent responses of the audience. Very often these spontaneous exclamations, both as to content and timeliness, were obviously unresponsive to the sentiments then being expressed in sermon, song or prayer. In other words, many of the minor manifestations of emotions came as accompaniments of an independent train of phantasy.

#### THE PASTOR'S TECHNIQUE

The evening services lasted from 8 p. m. until midnight. They began with a hymn during which we all stood up and each held the hands of his neighbors. The revivalist started his sermon in some narrative of commonplace experiences of the day. A bit of humor and laughter often promoted an emotional unity between pastor and audience. After ten minutes or so, by easy stages the parson would change his discourse to some religious or moral lesson, or comment in some rambling way upon a scripture passage. As the evangelist

grew more serious the laughter from his hearers changed to amens, groans, or humming, accompanied by the rhythmic tapping of the feet, movements of the head, and clapping of the hands. As the pastor became still more excited, as if quite unconscious of the fact, his voice lapsed into a sing song monotonous chanting rhythmic intonation, adapted in a measure to an existing responsive murmur from some of his audience. As some phrase of his suggested the words of a song his chanting merged by almost imperceptible stages, into some familiar hymn. The crowd soon took up the refrain and presently all were singing quite spontaneously and vigorously, without any sudden interruption in the pastor's performance or any announcement that music was in order. It just came because the emotions were properly attuned and guided. As the singing progressed, the pastor's voice sometimes became spasmodic and his short exclamations of some disconnected words of the song did little more than to offer a discordant rhythmic accentuation of the emotional expression of the crowd. This was frequently accompanied by the most violent hand clapping or stamping on the platform. As if by an unconscious automatism there came a realization that the time had come for a change in the energetic manifestations.

Too great a prolongation of the same kind of noise, tends to lose its stimulating power in inverse ratio to its duration and will eventually have the effect of only a monotonous rumble and cease to satisfy the craving for stimulation. Hence a frequent change in the expression of exuberance is necessary for efficient continuing stimulation. The pastor's voice was lowered as he sang, and soon reduced to a mere humming through the nostrils, the mouth being tightly closed. Sometimes this was accompanied by increased bodily movements. The crowd followed suit and the song soon faded out of existence. The pastor, even before the humming had died away, gradually merged from singing into the continuation of his discourse. At first this was mere monotonous jerky articulations. Later the ordinary intonations of his discourse reappeared. All this change seemed to be less the product of conscious design than of subconscious guidance of exertion.

After a couple of such songs the pastor's voice became still more intense and tremulous. His hand clapping became more frequent and more violent. Also he oftener indulged in stamping and in more frequent and higher jumping. Then he seemed almost to lose control of his voice. His exclamations became ejaculatory, spasmodic



and at times mere repetitions over and over of one or a few words. The lines of his face now made him look like one beside himself with some sort of all obsessing emotion or passion. Frenzy and the Holy Ghost operate much alike. The large thick lips trembled as he fairly howled in husky voice, something which was not even an intelligible word or syllable. Shrieks from the audience broke in; many jumped high from the floor; one stood upon a chair and gesticulated wildly; arms flew through the air; chairs were tipped over; there was great commotion in every part of the church. Pandemonium reigned. "The Holy Spirit" seized several sisters and threw them to the ground. Others were impelled to sit on the lap of their neighbors. Of all this, the parson seemed to be wholly oblivious. He too had passed into a world of rapturous phantasy so thoroughly obsessing that he appeared wholly unconcerned and probably was inhibited from becoming conscious of all that was happening. The pentecostal service was on and the Holy Ghost was busy, very busy, intensely absorbingly busy; that was all that mattered.

#### SERMON ON THE PRODIGALS

On another night the sermon was upon the prodigal son and daughter. The pastor pictured in elaborate detail many imaginary trials and tribulations experienced by the prodigals and by the anxious mother and father, before and while forgiving and welcoming the prodigals back to home and heaven. The pastor started in a mild conversational tone, but soon the voice grew louder. Quite gradually and apparently by an unconscious automatism, the voice at times assumed the sing song of a monotonous inflection, which I found a characteristic of many negro religious enthusiasts. Then by like processes he lapsed back to his ordinary form of sermon delivery. To me it appears as if this relatively monotonous intonation is probably the natural forerunner of the chanting still heard in many churches, where of course, it is modified by the refinement of musical harmonial technique, in a consciously improved imitation of the more primitive and passional chant.

As the sermon proceeded the parson grew warm and the perspiration began to run down his very black and very fat face and neck. His voice grew more hoarse and loud. Occasionally a mere shout at the very top of his voice was interjected by himself; then came a hand clap or two. The louder tones of the primitive chant become more tremulous; sometimes they were more like wordless

bawls at the very loudest of his ability, with the mouth stretched to the uttermost. The arms then were horizontal from the shoulder, with the elbows bent upright and fists tightly clenched. Moments of relaxation came. The former chant merged into a hymn, accompanied by rhythmic accentuation through the clapping of the hands. Then came also the singing accompaniment of the congregation. The hymn being ended, the "sermon" was resumed even more vociferously than before. Now the pastor stamped his foot vigorously upon the platform. Then with "a tear in his voice" and obviously under the very greatest strain of most extraordinary emotion, he begged the wayward sinning girl whose shoes have been kept under her male friend's bed, to come back to mother, to mother to—m-o-thh-errr. Before this, occasional shouts and groans had been interjected by the audience. Now several young women began to shriek, jump, throw their arms in the air, writhe a moment and then they fell back to the chair or over a neighbor's lap. Some young men accustomed to officiate in such cases gave first aid to those "thrown down by the Holy Spirit."

#### BEHAVIOR OF THE POSSESSED

Not far from me was a young woman who gave signs of coming under the influence of "the spirit." The semi-official male attendant grabbed her arms from behind so she could injure no one with her elbows or fists, as she twisted back and forth convulsively. Her eyes were shut, the man pulled her arms straight at an angle of 45 degrees to her body. She yielded to his greater strength, or responded to an opportunity for satisfying a personal impulse. At any rate, she dropped her head onto his chest and neck, then rested quietly, almost in his embrace. In a little while another young man tried to open her clenched fists but in vain. They sought to seat her, but her body would not bend. They tried to push her arms down nearer to her body but they were rigid. This method was abandoned. She was then pulled out into the aisle, her body still rigid, her feet dragging on the ground. Once in the aisle, with one man holding her at the shoulders, another picked up her feet, and rigid as a board she was carried from the room.<sup>2</sup> Meanwhile the services were continued as though nothing had happened. Others had shrieked and fallen, and had been restored, or had been carried out, and I could almost read

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2. For the sexual import of this catalepsy see; *Psycho Analytic Review*, 2:352.

in the elated expectant faces of the attendants a disposition to shout "next."

Another evening a young woman of about 17 years arose and walked to the nearby space between the altar and the pews. Her gait was a bit uncertain and she began to gesticulate, rather slowly at first—then more violently, all the while preserving rhythmic movements of the body in harmony with the singing. Soon she sang out of time and out of tune. Then came some convulsive shrieks. Next there appeared an evident loss of the control of other bodily muscles. Her gait became more uncertain; she staggered; the arms were in the meanwhile being flourished in a lively manner and she seemed to be trying to embrace something not visible. Now she collapsed entirely, depositing herself insecurely in the lap of a girl seated in a chair near her. Then she fell, knocking over a couple of empty chairs. On the floor she continued to twist and wriggle. Several young men rushed to her aid. She was picked up and supported by the willing arms of the young men, but with her feet resting on the floor, they straightened out her arms and held them at right angles to her body, evidently to prevent her from hurting any one with her tightly clenched fists, as she continued to twist herself rather violently to and fro. Her efforts did not appear to be directed toward a release of herself. She seemed rather to be bracing herself for a more effective and satisfactory muscle-tension. A momentary calm came over her, but it was only momentary. Then she collapsed. The weight of her body caused some lowering of it as she brought her head forward and drew up her knees. She was given support by the young men from her shoulders to her hips. They were almost carrying her. Now came a violent straightening out on her part. The head went back, the hips were thrust forward and upward, her heels violently struck the floor. She strained a few moments and then began again the rhythmic thumping of the floor with her heels; both heels simultaneously kept time with the intensely rhythmical but discordant singing which was going on. Now the energy of her movements seemed to be rapidly waning and soon were ended. The young men who had been trying to unclinch her fists at last succeeded. As the fingers straightened out one of the men gently slapped her open palm a few times with his own palm. The young woman seemed to be regaining consciousness of her relation to her environment. Wilted and weak she was guided to a nearby chair where she seated herself in a limp and very relaxed condition. Her body dropped forward; her head

leaned to one side, and the eyes were still nearly closed. She turned aside, put her elbow on an adjoining chair and covered her eyes with her hands, while she perhaps wondered what had happened to her, or whether others understood her secret; or she may have been trying to fathom the innermost secrets of the departing "Holy Spirit." After ten or fifteen minutes she sat more erect. Her eyes were now wide open and a contented calm expression was on her face as she looked out upon the next "wrestler with the spirit." Beyond a slight rhythmic movement of the foot, beating time to the singing she seemed not to have any further active interest in the unusual performance. Perhaps she was enjoying that peace which passeth all understanding.

#### HOLY GHOST GETS BUSIER

But we must have a still more intimate personal observation of the operations of the "Holy Ghost."

Next came a shriek from the other side, and an attractive young yellow girl came forward with a quick vigorous step and upraised arms. She staggered, then rushed across the open space before the altar and back again. She staggered again and halted at the head of the aisle. Her arms went straight up as she jumped high in the air and uttered a terrible shriek. As she landed on her feet she ran swiftly down the aisle into the arms of one of a group of young men who had just finished their services to another girl who had fallen among the chairs. On the young man's face, as he held her firmly in his arms, was a smile which seemed to express sympathetic understanding and amused indulgence. Soon, the internal storm was over. The young woman was released and later as I looked back her face was calm and placid as though nothing had happened. Thereafter she was only a calm and interested spectator of the excitement going on all about her. From now on she was among them but was obviously not of them.

Again, I was seated in the front row of seats by the side of the pulpit when from behind me I heard shrieks, falling chairs and much commotion. Not wishing to be too conspicuously curious, I only turned my head a little for a few moments and saw that several more young women had been seized by the "Holy Spirit," had been thrown to the floor and were receiving "first aid" from the young men. The singing was dying out but foot tapping continued as an accompaniment to the exhortation of the parson.

Here at my left, a woman of about fifty gave signs of restless-

ness and great excitement. Now she got up to testify for Jesus and with majestic stride, rythmically responsive to singing, her head high up and bent as far back as possible, her arms sometimes swinging, and again momentarily folded across the breast, she proceeded in a shrieking excited voice to "bear her testimony." Twice she went across the floor and back, her voice and gait growing more uncertain. As she approached her seat the second time she shrieked at her loudest: "I am *with* God and *Jesus is in me*," and so she half fell and half placed herself in her chair. Now for the first time her head dropped to the front. She brought her arms forward as if to embrace some visible being, then folded them tightly over her breasts, gave her body a few vigorous wiggles and the "Holy Ghost" had flown. In a few minutes she resumed her former attitude, beat time mildly when the singing was on and otherwise seemed quite unconcerned about her surroundings.

At the front was a dusky young woman wrestling with the spirits. Her arms were folded tightly over her breast; her eyes were closed and her head hung forward, her body swaying greatly from side to side. On either side sat a colored woman. Each put an arm tenderly around the back of this spiritually controlled, bodily unstable sister and they placed their other hands upon the folded arms of the possessed damsel. So, by exerting a firm yet gentle influence upon the body, the "Holy Spirit" was seemingly prevented from producing the more violent manifestations which were then being exhibited through others at the rear of the church.

The hands of the supporting sisters probably had the effect of keeping the "possessed sister" too conscious of her relation to her environment, to permit of a total abandonment to the world of ecstasy and phantasy, or to its subconscious emotional compulsion. One colored man explained to me that the reason why these manifestations appeared more frequently in the young women was because the women have less physical strength to resist. The above incident suggest that the visitation and control of the "Spirit" was interrupted by the timely pressure of the neighboring sisters arms, which partially awoke the victim from her reverie and again made her so conscious of her environment, as to inhibit conduct which would then seem very unbecoming, very indecorous.

#### HOLY GHOST AT CLOSE RANGE

I sat at the side of the pulpit facing an open space in front of the

pulpit. From the seats at the opposite end of the open space a squeaky voice pierced the din of the battle with sin and satan and exclaimed "praise the Lord." Then a lady, appearing to be over fifty years of age, emerged from the seats and went jumping into the open space keeping time with the music and trying to do a little singing herself. Her attack seemed less violent than that of the younger sisters, and so far had the appearance of being more under the control of a conscious will. She was old and the muscles are perhaps a little stiff. She could not squat so low nor jump so high as the rest. She seemed a little artificial in her way of jumping about. The Holy Ghost seemingly was unwilling or unable to overcome the limitations of the body. To me it was almost pathetically grotesque, but the subsequent events showed that it did not impress others so. The old lady jumped about as sprightly as was possible for one of her age, yet her movements had an element of awkwardness and angularity. I also noticed that none of the young men went to steady her body during the jumping as in similar situation they aided some younger women. The old lady's awkward movements in jumping were so manifestly necessitated by some compulsion for a pelvic movement that probably many must have gotten from her a sexual suggestion implicating an invisible partner.

It is to this fact that I ascribe the result. With nothing going on other than a rather mild and usual singing, and the sight of this old woman's "superhuman" joy (manifested in her face and by her pelvic movement) there was produced among those around the altar, who had best opportunity for seeing her, the most extraordinary scene of the evening. In a short time a half dozen were here seized by the "Holy Spirit" and they shouted and leaped with joy most extravagantly. The commotion and excitement then spread to other parts of the audience where many others were "thrown down." The shrieks of these became mingled with those of some men who also became "Spiritually" happy. This scene even more than the others is far beyond my capacity to describe. The nearest approximation would be a lot of half intoxicated students celebrating a football victory. It might have been a riot or a madhouse medley. So I must content myself with describing a few of my neighbors.

Two or three chairs to my right, also in the front row of seats, sat a plump young molatto woman about 22 years of age. Suddenly

she shrieked and jumped into the open space in front of her. It seemed as though some impulse within had been suppressed too long and a sudden explosion was the result. There was commotion among the women. The jumper had some uncertain twists and movements of her body and for want of sufficient ability for self-control, she seemed in danger of falling. The regular assistants to the "possessed" were all busy, so I sprang to the rescue. I grabbed her left wrist in my left hand and placed my right arm at her back to steady her body. Some women attempted assistance but gave way at her right to a young colored man who held the right wrist in his right hand. In the meantime the "possessed one" regained a relative poise in a more regulated and rythmical jumping. We, the mulatto aid and myself, removed our arms from her back and got hold of her arms up close to the body. Now we guided her firmly in a perfectly upright position, while she jumped ever harder and higher, her head back, and her eyes in a fixed and glassy stare toward the ceiling. The girl had unusually large mamma, covered only with thin underclothing and a flimsy silk shirt waist. As she jumped her breasts flopped violently and conspicuously. Near by was seated a young woman who had wrestled with the "Holy Spirit" a few nights before and to-night sat calmly but with a beaming, satisfied expression on her face. Otherwise she had remained unmoved by the emotional scenes around her. She now came forward as if to protect my modesty from shock, and tried repeatedly to pull and fasten the girl's coat over a doubly heaving double sized bosom. But the coat could not be made to stay buttoned.

Meanwhile the bodily motions and the occasional scream had about reached the climax of her possibilities. Her breathing was loud, spasmodic and uncertain. The time for a last supreme dying effort had arrived. With a shriek, more despairing, if possible, than any before, she straightening herself as in final desperation, throwing back her head and shoulders, so that her weight was difficult to sustain with our present hold. Through her backward leaning body, simultaneously her pelvis came most vigorously forward and upward. Women came to our aid to sustain the sinking body as she twisted and wriggled as if to compel a release of our hold on her arms. Then she grew rigid for a few moments, followed by a few spasmodic pelvic movements, but with decreasing vigor. Now it was apparent that the "Holy Spirit" was leaving her. Her head came forward and she leaned against me seemingly indifferent to all around, her body

still quite rigid. Some were endeavoring in vain to open her tightly clenched fists. Others had begun to fan her. Some official "first aiders" having been released from duty elsewhere now insisted upon replacing me in the matter of ministering to the "glorified one." I yielded and in a little while she was seated calm and contented in her old place. In the meantime I busied myself with my immediate neighbor, whose hand I had held during the general hand-holding at the beginning. She went through similar but milder experiences.

#### CONCLUSION

There are other observations that I would like to report, especially those relating to the men. The same is true of some evidence that gives special support to my concluding remarks. However, one cannot tell in one essay all that one knows. Therefore, I content myself with a few concluding general observations impressed upon my mind by the scenes so inadequately described.

The foregoing revival observations can be approached with varying predispositions, and accordingly will receive different interpretations. The good orthodox Christian folk, who give support to revival missions held by all kinds of Billy Sunday's must, of course, find herein something to support their own need for a Holy Ghost, as a compensation for some feeling of inferiority probably based upon feelings of shame and excessive consciousness of personal sin. Among these we still find further variations of attitude.

If their feeling of shame or inferiority is great, then the need for superhuman support will be equally great. If, therefore, they strongly desire to be moved and supported as vigorously as were these negresses, or if they have already had similar experiences to which they have given mystical interpretations, they will see in these subconsciously determined performances very conclusive evidence of the operation of the "Holy Ghost," or of some other superhuman agency. Likewise, such persons will refer disparagingly to the less demonstrative, the more luke-warm convert, and must pity or denounce the cold "materialist" who seeks to explain such experiences on a psychophysical basis. The disparaging pity or denunciation, is a manner of attaining a compensatory consciousness of superiority over the ungodly ones. The degree of intensity of their emotional conflicts and its compensatory mystical interpretation, now becomes the exact measure of their emotional aversion to "medical materialism."



Many Christian mystics there are whose emotional disturbances are relatively mild. These will necessarily disparage all "excesses" such as I have described, as being manifestations of the "abnormal." They believe only in "sane mysticism," in "normal religion," in that "sweet calm communion with God;" that constant superhuman influence and personal guidance; that "ever-present consciousness of grace" which "giveth a peace that passeth all understanding." The extravagances of the "abnormal" they must disparage as a means of securing their own compensatory consciousness of superiority in "normality." And yet, when the divine rapture is over with, one cannot easily distinguish most of those who have gone through the above described experience, from the average of negroes who have never been so favored. Neither can any mystic point out an essential and fundamental difference in the psychologic quality (as distinguished from quantity and intensiveness), between the "abnormal" and the "normal sane" sort of religious experience. There is an obvious difference in the intensity of that which is experienced, accompanied by an obvious difference in the degrees to which the "abnormal" are for the time being obsessed by their subjective states, and correspondingly inhibited from guidance in conduct by a consciousness of the environment. Expressed from an opposite viewpoint we may say that there is an obvious difference in the degree to which the "sane normal" experience of religion is inhibited from going the same length as others. He is so inhibited by the persistence of his consciousness of the demands of his ordinary environment. There are also varying degrees of psycho-genetic consciousness, each in turn accompanied by varying degrees of shame or by an attendant feeling of inferiority. All these factors necessarily operate in some to check the more extravagant manifestations of impulsive tendencies. That such persons are able to remain more conscious of the environment only means that their impulses are relatively less imperative, their energies are less repressed. Religion as personal experience fades out, merges into pure secularism, when our libido is unrepressed through wholesome and continuous normal and satisfying self-expression. Then we only entertain more or less scientific opinions about subjects of religion, and we no longer have a religion of personal experience.

Very different from the above described various mystical interpretations is the result if we seek to explain these revival experiences from the standpoint of one who has no intensified erotism due

to repression or emotional conflict, and no inferiority complex that requires compensation through superphysical or superhuman attachments. Then we may co-ordinate the observed facts of revival experience with what we know of the behavior of human energy as observed in the field of religious and sexual psychology. Thus some are incapacitated from seeing in these revival phenomena, as described above, anything but a psychic sexual orgasm.

From this point of view the varieties of physical manifestations of revival excitement are explainable by varying degrees of sexual repression, sensitiveness, or shame, and the resultant varying degrees of intensity in the sexual excitement and of the muscles involved in the spasms. So we find a psychologic unity between Holy Rollers, Holy Jumpers, Angel Dancers, Holy Jerkers, Divine Quakers, Shaking Quakers, Dancing Dervishes and the Dance du Ventre.<sup>3</sup> So likewise in the lesser intensity of "sane normal" religious experiences, we see only a milder stimulus perhaps not impelled to the orgasmic stage, and accordingly more largely conscious of environmental relations. Thus we explain those persons who cannot wholly lose themselves in ecstatic reverie, to the exclusion of all that sense of propriety and fitness which the consciousness of the environment imposes. When this consciousness is lost the conduct is no longer a response to the environment, nor necessarily in any way in harmony with it. Under the influence of such more intense compulsion "every one goes it alone"—acts out the needs of his or her own autonomic apparatus.

I have considerable evidence to be adduced later on to show that even some of such "normal" experiencing persons are at the very times of their experience conscious of the sexual involvement and character of their religious ecstasies. Others, with perhaps more emotional conflicts about sex, succeed better in excluding from consciousness the sexual sources and factors of their experience. Among these latter, some appear to do this quite permanently. Others have been found who later became aware of the sexual nature of their conversion experience. All this part of the discussion must be left for another time.

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3. See:—The interpretation of this by Ida Craddock, mystic author of: *Heavenly Bridegrooms*. *Alienist and Neurologist*, 1916-1917.

# THE PSYCHOPATHOLOGIST AND HIS RESPONSIBILITY<sup>1</sup>

BY C. MACFIE CAMPBELL

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**T**HE Psychopathological Association meets this year under circumstances in striking contrast with those of the last annual meeting; then in full war, and at one of the most critical periods of the war, now at the threshold of peace. These events form the background of our daily life, and influence the trend of our special work. Under the stress of the war situation the scientist has had to prove himself a good citizen; and each science has taken the opportunity for showing how in her case "wisdom is justified of her children." From chemistry to psychology the various sciences have been able to demonstrate their value to the State. It might seem appropriate to do the same for psychopathology, and the task would be an easy one. In time of peace the medical profession had only occasionally been roused from its psychiatric slumbers, when some specially noisy controversy promised diversion, and the laity was seldom aware of psychopathology save when it seemed to touch the province of public morals. The serious military problem of the war-neuroses made internist, surgeon and laymen alike take cognizance of problems in their military garb, which in their peace garb they had been wont to ignore. War-neuroses and peace-neuroses are essentially the same; the front in the one case is represented by trenches, in the other by the home and the market-place.

The conscience of the internist and surgeon and layman—and in relation to the problems of psychopathology the internist and surgeon have virtually been laymen—touched to the issues of the neuroses in soldiers, must not be allowed to lapse back into ante-bellum apathy. A serious responsibility rests on psychopathologists to use the present golden opportunity, and to see that the body of knowledge acquired by them is firmly woven into the general fabric of medical science, and does not remain in a state of splendid but unproductive isolation. If progress along these lines is to be made

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<sup>1</sup>Presidential address delivered before the Psychopathological Association, at Atlantic City, June 18th, 1919.

there will be required a spirit of toleration, an attitude of cooperation, a sanity of judgment and a moderation of statement, which have sometimes been lacking in the past. In this paper I propose to discuss very briefly the responsibility of the psychopathologist in relation to matters, with which personally I have recently been somewhat occupied.

The thorough analysis of the maladjustments of adult life has led to increasingly intensive study of the life of the child, of his native equipment, of the complex factors involved in the atmosphere of the home, the school and the playground, of the sensitizing results of various experiences, of the complexity of the instinctive organization and the interplay between the instincts and the other forces which go to make up the total personality. Investigations along these lines have yielded a rich harvest, valuable not only to the psychopathologist, but to whoever is concerned with educational theory and practice or interested in cultural progress in general. Where the issues are so far-reaching, it is most desirable that what is valuable in the new doctrines should not be so mixed with doubtful material nor so diluted by extravagant hypotheses as to be rejected by those best equipped to assimilate and to apply them.

The psychopathologist, who is interested not only in detailed research, but in the utilization of the information thus acquired in forwarding the progress of mental hygiene in the community, realizes that in isolation he can do little.

He sees the necessity of invoking the cooperation of teachers and others who are practically concerned in child welfare, and of making them sensitive to factors in childhood, which clinical experience has shown to be of great importance; in this task he is much hampered by the inadequacy of the available books on child psychology, which are of so little help to whoever has to deal with the real child and his difficulties. He, therefore, welcomes any book which may help these workers to gain an insight into the subtle problems of childhood.

The author of any scientific work has the absolute right to present his individual views in the form most acceptable to himself; he is responsible only to his own conscience for the form and matter of the presentation.

The psychopathologist interested in mental hygiene, however, feels that the author of such a book has a great responsibility. He can not help judging such a book in relation to the effect which it will produce on those cooperating in educational work, as well as on its intrinsic merits; a strong individual colouring, perhaps a source of

literary charm, may in this case deprive the book of much of its value and make it a somewhat doubtful contribution.

It is with mixed feelings that one finds published an English translation of Dr. H. Von Hug-Hellmuth's *A study of the Mental Life of the Child*. It is to the author's credit that she is neither too proud to enter the nursery, nor too dainty to follow the child into the toilet, and that she honestly puts down the results, no matter what the conventional value of the topic. The book is full of fine observations, it shows sympathetic insight into important aspects of the child's life which are usually passed over in silence; but at the same time it introduces, as of equal value, statements of the most hypothetical nature and so startling that the worker, not trained to separate the wheat from the chaff, will be tempted to lay down the work in despair. The judicious must grieve at the author's facility of hypothesis. In the very first pages the author shows that she is not content with mere observation but that the reactions of the new-born infant are to be subjected to ingenious interpretations, no control of the validity of which is possible. We find the infant with no "trailing clouds of glory" but bursting forth into the world in frenetic pursuit of pleasure, which is almost always assumed to have some erotic significance. I shall not stop to discuss this prevalent assumption that the pursuit of pleasure is necessarily the determining factor of all human activity; we may leave such a discussion to ethics, where eighteenth century utilitarianism has furnished a lively topic of debate.

A few examples may be given of the author's method. She emphasizes the fact that the mode of reaction of the child is liable to be determined by prenatal experiences: the pleasure which one child claimed (perhaps in momentary defiance) that he derived from the smell of the fingers, which he had been sucking, is tentatively referred to "memories of odours associated with the intra-uterine state"; the warmth of a tepid bath "may awaken in the infant a dim memory of his life before birth." "Possibly the deepest root of the infantile fondness for quiet corners is to be sought in phantasies pertaining to the prenatal state in the uterus" (p. 83). With memories reaching into the prenatal period, and reactions as complicated as those of the adult psychoneurotic, the child's mind is presented to us not as something in course of evolution, but rather as a wonderful miniature of the adult mind. The following references may illustrate the author's interpretations borrowed from the analysis of adults. With the little child playing at keeping house, the scouring and polishing "do not

spring solely from a desire, on her part, for activity, but they must be recognized as a beginning of the repression of *forbidden* desires, of those longings which live themselves out, in their primitive form, in the game of 'Doctor' " (p. 67).

For doubtful observation and exuberance of hypothesis the following may be cited: "The habit of measuring things in play is more pronounced upon the whole with boys than with girls in early youth, and it is natural and probable that its deepest and most strongly repressed and secret root lies in the interest in their own sex-organs from the size standpoint, and in the comparison of them with those of other boys" (p. 88). Another gratuitous hypothesis: "The act of casting something at an object, aiming at something, could be considered as a symbol of erection."

A child of 18 months cried when his sister cried; to the author this is too tender an age to be credited with altruistic feeling, but not too young for the explanation that the crying is partly due to "the unconscious overcompensation of the sense of hostility through exaggerated demonstration of affection." Here the miniature psyche of the child anticipates the adult hypocrisy of the drawing room.

A final quotation may be given to show how recent formulae, derived from the study of adult maladjustments, are applied without qualification to another sphere: "Indeed it is not going too far to search for the basis of everything that goes wrong with a child in his own sexual life, or that of the persons with whom he has to do."

The serpent enters Paradise at an early age; that we may admit, but let us give the Devil his due, and not utilize the serpent as a scapegoat.

If Von Hug-Hellmuth, in order to throw light on the dark places of the child's mind is tempted to give us glimpses of the intra-uterine psyche, Ferenczi<sup>2</sup> anxious to illuminate the general problem of man's adaptation to the universe, utilizes to the full his intuitive knowledge of intra-uterine or prenatal psychology. No more ardent advocate of the intra-uterine state could be found than Ferenczi: "If the child in the mother's womb has a psychic life, unconscious though it be—it must receive from its existence the impression that it is omnipotent. For what is omnipotence? The sensation or feeling that one has everything that one wishes, and that there is nothing left to be desired." One may cavil at this definition of omnipotence but the Nir-

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<sup>2</sup>Entwicklungsstufen des Wirklichkeitssinnes. S. Ferenczi. Intern. Ztschr. f. Aerzt. Psychoan. Ht. 1, S. 124.

vana of the intra-uterine state is apparently very desirable, if lack of desire be desirable; birth is more or less a disaster and instead of fear being the dominating emotion of the nascent individual, as Freud suggests, it would be more natural to assume that the attitude is one of blind despair. The first cry of the child after manipulating the various stages of descent in the orthodox obstetrical fashion may be correctly interpreted as:

.....facilis descensus Averno

Sed revocare gradum.....

Hoc opus, hic labor est.

The new-born longs to return to its paradise, and the nursing personnel intuitively recognizing this wish, no doubt owing to the vibration of their own subconsciousness, try in the conventional way to procure the child the illusion of its earlier habitat. In a lyrical strain Ferenczi describes how the child is either sheltered by the nurse from unnecessary stimuli or is rocked and sung lullabies, to reproduce that obscure external and internal vibration which perplexed the child as he swung to and fro within the uterus.

Ferenczi attempts not only to feel himself into the psyche of the new born, but also to think himself into it, and it is through just such anthropomorphic thinking oneself into the immature and developing psyche of the child that Von Hug-Hellmuth has produced the weakest parts of her books. With such an anthropomorphic standpoint all the familiar biological reactions receive new interpretations; thus, for Ferenczi, the first sleep is not to be considered like the sleep of the puppy or the kitten, it is nothing else than the successful reproduction of the intrauterine situation, which gives the greatest protection from external stimuli. All later sleep is a periodic regression to this condition, "to the stage of magic-hallucinatory omnipotence." If a biological reaction like sleep can receive this anthropomorphic interpretation there is no reason why it should not be extended to pathological reactions like the epileptic attack. Dr. Pierce Clark has endorsed this point of view and maintains that the unconscious strivings of the epileptic are more intense than simply the desire to be caressed by the mother, they represent the desire to be in the mother, the physical union of the intrauterine life is sought, the Nirvana of prenatal existence, perfect Allmacht (*à la mode de Ferenczi*).

To some a critical attitude towards such formulations may appear to indicate "resistances," and the mere accusation is as fatal as elsewhere that of being bourgeois. We are, however, at a stage where

such polemical methods may be discarded in the interest of the progressive elaboration of well-grounded psychopathological doctrine, its incorporation into medical science and its utilization for the public welfare.

Some may have too many "resistances," some too few; some may fret against the delay due to the toilsome sifting of data of little emotional appeal, and may indulge in imaginative constructions of shadowy outline and vague formulation, while others may be too little responsive to what is suggestive in these products of intuition and imagination, and remain somewhat fettered by their insistence on particulars and their demand for scientific proof.

What is sometimes forgotten is the wider audience, both medical and lay, and the social problems which form the wider setting of those strictly medical. If we remain sensitive to these wider issues we shall cultivate a sobriety of thought and presentation, involving to some uncomfortable self-restraint, but which holds out a promise of much wider usefulness. The neglect of these considerations may delay the recognition by medicine of the place due to psychopathology; inspired by them the psychopathologist will have the better claim to be good physician and good citizen.



# CYCLOTHYMIC FUGUES

## FUGUES ASSOCIATED WITH MANIC-DEPRESSIVE PSYCHOSIS: A CASE REPORT

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**C**OMplete schisms in the realm of personal identity are classically found in hysteria. Their occurrence in Epilepsy, Alcoholism, Schizophrenia (dementia praecox), and individuals without manifest psychosis has been described. Certainly there is not, however, any abundance of literature on the event of such episodes in the course of the Cyclothymoses.

Such a case is here detailed. It is that of a man with a frankly cyclothymic constitution. The first act of the drama was a psychotic episode which was probably a manic phase; it was succeeded by two fugues, practically intercurrent, in which he disappeared entirely for over 2 years. The history of his travels and life during these fugues was completely lost until the onset of a typical manic state shortly after his return to normal existence. During the psychosis, after a preliminary phase of excitement, hyperkinesis, etc., he became grandiloquently expansive, identified himself with God, and related in detail all the events of the fugue out of which he had recently emerged. This was followed by a hypomanic state which shortly terminated and he was discharged. For a time he was quasinormal mentally, and recollected his narration of events of his fugue, but had again forgotten completely the events themselves, much to his bewilderment. Soon he began again to experience *Daemmerzustaende*; he would "find" himself in nearby towns, evidently as the result of a brief fugue. He asked for voluntary commitment and after a month was again discharged. Then followed a period of mild "manic-depressive, depressed," in which he was, however, able to continue his work. This gradually disappeared and he was at the time of submitting this manuscript, approaching a normal state.

In short, then, here is a man who was cyclothymic, and in whose case there succeeded Mania, Fugue No. 1, brief interim; Fugue No. 2, Normal interim. Mania, Recollection of events of Fugue No. 2, Hypomania, Normal interim. Fugues No. 3 (several brief), Normal interim, Depression, Normal interim (?).

Whatever the final outcome of the case, and whatever its essential significance, the striking and unusual relationship of the identity splitting and the cyclothymic tendency and psychosis is certainly of the utmost interest.

The case follows in detail: D. B. is a man of 30, whose family history is in all particulars negative. It will be added here for all time that his physical condition was entirely normal; the blood, spinal fluid, and urine quite negative.

At about the age of 18 he joined the U. S. N. There is no history of any abnormal mental tendencies whatever until after the age of 25. He married happily 7 years ago; wife has had 2 children and no miscarriages. Although he had had only a grammar and commercial school education, he was a wide and capacious reader, so that combined with his travel experiences, he became virtually a well educated man, and this fact appears from a study of his career as well as from his written productions. Prior to the events in the succeeding history, there would appear to have been a certain tendency toward the constitutional quasi-hypomaniac state: he investigated and reported in great detail certain "conditions" at a certain Radio station, where he was put in charge; he instituted personally numerous needed repairs; he sent "lengthy telegrams at my own personal expense" (his own description) in regard to the work; he (later) "immediately organized a class in splicing, since not more than 1 in 30 . . . has been instructed in the art of making an eye splice or a back splice, nor in the use of a palm and needle."

The first evidence of psychosis, however, appeared as follows: In May, 1913, he was ordered to duty on the western coast, first to California, then to Alaska. It was here that he found, as he claims, that the radio station was in poor condition, and instituted the investigation and made the report above mentioned. Shortly afterwards he received a copy of an inspector's report giving him the blame for the conditions instead of the credit for reporting them; and he was subsequently relieved of that post. From this time "I was not myself. . . ." No proof of this is appended, however, except that his memory for the succeeding events is "hazy" and the facts are tak-

en in part from his wife's memory. Subsequently various misfortunes overtook him; their stateroom was robbed; he was unable to find an abode for his pregnant wife; he was transferred to a new station where there were no accommodations. These mishaps finally repaired, trouble with the enlisted force began, and unpleasantness between the wives of the petty-officers, etc. The climax came in the birth of a second child without medical attendance, the physician being kept away by a storm. (The station was an insular post.) This was in January, 1915.

A month later he was again transferred. "From that day on I cannot swear to anything, for I know nothing (with one exception . . . a sort of struggle with a sergeant named Bennett or Barnett, who was confined with me in a cage on board the transport T.). The cage referred to is the one used for transportation of what some people are pleased to call lunatics. On the balance of the trip I have not the slightest recollection, nor did I know until my return to Boston on April 24, 1917. . . ." (This was, then, a period of 26 months.)

The subsequent history is as follows: He was transferred to the Phillipines for duty there; had some trouble again with other service men, and was retransferred to a hospital. The details of his illness he learned long afterwards from an associate whom he happened to meet, who told him that he had gone to the officer's cabin indignant and "enraged" over interference with what he regarded his duty, and with the officer's behavior, and threatened to kill him.

He was then sent back to the United States on the transport T. (which fact he recalls vaguely) arriving in California on December 5, 1916. It seems then that the authorities gave him "the choice of a medical discharge or 3 months leave," putting the question to his wife by mail. He telegraphed her for the money to come home, and was given a furlough "on or about January 16, 1916." "The ticket agent (later) informed Mrs. B. that I had appeared at the office of his agent in response to his advice that upon demand I would be furnished with a ticket and funds to take me through to Boston, that I had made inquiries as to train schedules, etc., and finding that I had some hours to spend, had told him that I would be back later, that I had several purchases to make and I did not care to take the chance of losing the ticket and money (which Mrs. B. had telegraphed him). I never again appeared. . . .

"What I did or what happened to me from the time I am report-

ed to have made inquiries at the ticket office up until about the 25th or 26th of February, 1917, I cannot say. I am not a drinking man; in fact have been rather proud of my total abstinence." (This and numerous other excerpts quoted above appear in a petition presented by him to the Naval authorities.) Search by detectives and officials was fruitless and he was given up as dead.

What actually occurred was later brought out in detail and will be given as it was learned. Passing over this period to April, 1917, a period of 16 months, we are informed that he "found" himself on board a small coastwise steamer working his way back to the United States from South America. . . . "My memory seems to come and go, but one thing was in my mind, getting back to Boston, getting in touch with my wife and family, getting all the details I possibly could and then find out exactly what my status was. I arrived in Boston April 24, 1917." He found his wife, the home was re-established, he reported to the Naval authorities, and after some preliminaries he was restored to duty "on a year's probation." From his own account his services were efficient and able; through his efforts certain bootlegging was detected and routed, and he was given charge over some 303 men; was complimented by various higher officers, and finally promoted to charge of the radio school of the U. S. S. W—. Later he was sent to San Domingo. There was some friction here, however, for reasons not entirely clear, and he was retransferred and eventually discharged as incapable of handling men.

His naval record here ceases, although he was greatly disturbed by the turn of events, and spent great pains in trying to be reinstated, an attempt which was unsuccessful. I have at hand a copy of a letter to the Bureau of Navigation which he composed, giving his version of the affair, which is some 18 pages of single spaced typewritten matter, perhaps 10,000 words.

At this time his wife thinks he showed considerable change in disposition; he was quite irritable and "grouchy," flaring up easily, but never unkind to her or to the children. He took his discharge very seriously indeed, and grieved much over it. Without difficulty, he secured a position in the ship building plants, earning \$30.00 a week, and took great pleasure in reestablishing his home life. After a few months, however, he secured employment in an investment company, with the promise of even better wages. This company is reputed to be one of high business standards and ideals. He became at once intensely interested in the work.

On the first day of the new work he complained of feeling "the same dripping in my throat that I felt before." On the third evening he came home distinctly hypomanic; he talked volubly and excitedly; brought the children some candy, kissed them and his wife, and went on talking of the money they were to have, and the idealism of the company for which he worked. He talked more and more volubly and boisterously; he began to touch on rather distantly related topics; he could not at first be persuaded to go to bed. When this was finally achieved, he would only sit in the bed and talk and shout. Finally he jumped up and rushed into the street in his underwear. There, he jerked off even this garment and stood stark naked in the street until apprehended by the police who brought him to the Psychopathic Hospital in the patrol at 2 A. M. July 27, 1918.

The picture presented by him here at that time is pretty well summarized in the Ward Admission Note: (quoted with a few additions)—"A euphoric, excited, husky Jew who talks earnestly and in a loud tone on the subjects of his delusions. He is 'the Master Mind,' says that his mind is God, that he dominates the thought of the universe, that he wrote the Bible, that he has 100 million dollars, and that it is in his head, etc., etc. He is grandiose and expansive, deluded, but not hallucinated, correctly oriented in all spheres, not irrelevant or incoherent, gesticulates but is not stereotypic, shows elation, flight of ideas, and hyperkinesis over a wide range."

This, in general, was the picture seen, and was sufficient to justify a diagnosis of Manic Depressive, Manic phase. As the excitement died down, he showed more tangible evidences of the manic state . . . was constantly on the *qui vive*, wished to be doing something, played the piano, served the trays, helped with the ward work, always with a bustle and an efficient speed. Before discharge he became much less noisy and more amenable to orders, although he was at all times fairly obedient.

He showed at one time, however, a very curious state which is of great interest here. The general attitude of this phase is well shown by the following note: "Very much disturbed, and talking constantly. Says he is "all in" today, following the lumbar puncture, and that in fact Dave is dead, and that it is the Creator speaking. What a damn fool the examiner is that he can't see that it is the Creator speaking. How indeed can Dave (who is dead) tell the Creator to stop swearing?"

It was during this identification of himself with God that the

events of his previous twilight-state were learned. He refused at such time to respond to his name, but answered freely to some such approach as this: "Good morning, Creator. Will you tell me how D. B. is today?" (To which he would respond, perhaps, "The Creator finds that Dave is better today . . . feeling pretty chirp"). By extending this interrogation to the events of his past life, the whole previously forgotten period was elucidated.

Thus it began that "The Creator is aware that D. B. remembers he went to get his ticket to come right back to Boston, but he never went to claim it. Something went wrong in his head and he went down to Orville, California. (It will be recalled that for none of these events had he any memory prior to the psychotic episode.) Here he signed a contract with Dreggian Company of London, and they gave him \$300.00 for traveling expenses. But he had to go 129 miles north to get this money. He got it from Mr. Hammond in the Fisk building in San Francisco . . . there was 3 of them, Dave and ~~a~~more. Their names were Mr. Stevenson and Mr. Mellier. . . ."

This narrative continues, always in the third person, and sometimes necessarily spurred on by pertinent interrogations. It runs that he went by a devious course to Columbia, South America, and by train to Barranquilla. This and many other foreign names, as well as innumerable minor details were related without hesitation by him throughout the story. They were up the Nechi river to a place called Zaragossa (and so on . . . ). He worked in various mines. At one time he developed some sort of lesion on his leg. For this he went to Medellin, Columbia to consult medical opinion, and saw Dr. Gil, "pronounced like Hill."

(Here I want to quote from the document written by the patient prior to the present psychotic episode, and excerpted above). "In all the dark period I remember only one or two events, viz: . . . lying in a bed with my hands secured under me . . . and a strangling feeling in my throat. Someone beside me was holding something over my face so that I could not see, and speaking to me in Spanish and I felt myself gradually losing the strength to struggle, while a sort of rattley sound seemed to be bothering my head and it seemed to me that someone was endeavoring to cut my right leg. It could have been but a short time afterwards that I began to regain consciousness, at least so it seems to me, and my mind seemed to be kind of cobwebby, still not so much that I failed to realize what was

going on and that I was in a strange place, entirely unknown to me so far as I know, and that something had happened to me.

"I soon began to realize that the two gentlemen in the room with me were doctors and that they had just completed an operation to remove a growth of some kind, an abscess, I believe, from under the large muscle on the inside of the right leg, well below the groin.

"During the intervening days while convalescing, I learned from these doctors that visited me alternately, that I had been operated upon for the removal of this growth under the muscle of the right leg, which seemed to have been caused by a heavy blow of some kind or other. They had used a gas dentists sometimes use in order to avoid giving me pain. The anesthetic used, I believe, is called "Sonoform" and is put up in small brownish glass tubes, which are placed in the inhalator and are then shattered by a blow of the hand to release the gas. Two tubes of this gas were shattered, but my recollection dates back only till the time of the breaking of the second tube.

"Further guarded inquiries elicited the information that I was in Columbia, South America, that I was known by the name of D. S. G. and wherever I went I had introduced myself as that party, using an American passport with my photograph and full description attached as a means of identification. This passport is still in my possession. Again my memory fails to serve me."\*

Thus it appears that for this brief episode he retained memory after the *Dämmerzustand* had entirely cleared, but it is also apparent that it is the only period of the long South American sojourn which was recollected prior to the psychotic episode (No. 2) which we are now describing.

The story related during the psychotic period continues:

"Dr. Gil operated on Dave's leg; he used Sonoform or something like that . . . it is a dentist's anesthetic you know. Dave recovered all right and started back across country once more, riding a mule. About this time Dave recovered consciousness and came to himself (sic). It was only momentarily and then went back again as before. He knew he was D. B. and he could speak English but he didn't know how he got there. It was kind of hazy in Dave's mind, he don't know how it was."

"He rode across country on this mule 450 miles and finally

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\*At another time he told his wife that he recollected finding himself riding a mule across country, wearing a heavy beard.

got back to the junction. At this point he took a canoe and went up the river to the old place where he had originally been employed. . . . They wouldn't give him his job back. Dave was very much hurt. But he picked up and went clear back to the coast, working his way. He came to himself down the coast, one day. The way he came to himself was this: He heard them talking about the war; it seemed that . . . America had entered the war, and Dave recalled that he was a sailor. Then he learned that they were going to take the sailors back that had deserted. He did not entirely come to himself, however—Dave never came to himself until he got to Philadelphia. He went back to the United States and landed at Philadelphia on the 22nd of April, 1917. He went by train to New York and stayed at a hotel in New York which the Creator can't remember right now, but will in a little while. Dave came to himself down at that New York hotel and he remembered that he had a wife and he took the train to Boston right off." (The rest of the story corresponds precisely with what is known to be actuality, and has been previously related).

This story was given chiefly at one sitting, but details were added by request at other times, and there was no essential deviation from the original story.

After the usual period of ten days he was committed to T———State Hospital. One month later he was discharged on visit from that institution, and was apparently immediately reinstated in his work with the bonding company. He called to see me 5 days later, somewhat exhilarated, voluble, and showing considerable pressure of activity. He claimed to remember all the events of his stay here and stated that while he realized his conduct had seemed abnormal he had done this for a particular reason, namely to gain admission to a hospital for the study of mental disease and have his mental constitution certified to therein, and his sanity established, so that he might have this guaranty to show his friends and business acquaintances. "A man said that either my company had a mighty good thing or else we were a pack of nuts, and I came here to demonstrate that I wasn't."

Suffice is to say that this clouding of insight and the various obvious symptoms of hypomania were sufficient to convince the examiner that he was yet somewhat psychotic.

A month thereafter, however, he called again, this time apparently quite clear. His wife was interviewed in the meantime and she agreed that he seemed in all ways his former self. His work



with the company had continued to be satisfactory and he was making a comfortable living on commissions.

At this interview he started by saying he wished to retract what he said at the previous interview, that he had thought it over and come to a different conclusion. "I realize now that . . . I had no real control over myself . . . absolutely none. I didn't want to do it, but I couldn't help myself. I seemed like two individualities." (sic!)

He then corroborated the incidence of the events immediately prior to his recent psychosis. He gave without any deviation whatever such details as his family history, his naval record, etc.

"I could hear myself talking to you, and see you plainly but for all that I was able to do, I couldn't help myself. Yes, I thought I was the Creator, and lots of other things. I was a gorilla; I thought you gave me leprosy with that lumbar puncture needle. It seemed that as Creator I was going into the bowels of the ocean and bringing up from the wreckage of the Titanic those people who had gone down with it. A peculiar thing about it is that I recall having tried to defend the Immaculate Conception, although as a Jew I have never confessed belief in it and in fact prefer not to discuss it. I also had some sort of feeling against priests . . . that they were all bad, and all turned into haddock and put into the sea. But some of my best friends are Catholics . . . religion makes no difference to me, nor colors nor creeds, nor nationalities."

*The most striking feature of his mental state, however, was a very curious reestablishment of the amnesia for the fugue about which he had revealed so much while acutely manic. He was considerably puzzled about it himself. "It's funny, now . . . I remember all that I told you about myself in South America while I was here, and I suppose it was true because it fits in with the few things I do know . . . but it is all news to me. I don't recall much more now than I did before I was sick, but I do remember telling you all about it then."*

When closely interrogated he did not remember quite all that he had told me, and did, moreover, recall some few details which he had not told me, and which he had not previously known. For instance, "Didn't I tell you that the officers went via New York instead of via New Orleans, as I went? And did I tell you that I came back on a banana boat?"

Even at this interview there was a certain suggestion of expansiveness, but no definite evidences of mental aberancy.

A few months later he came in one morning quite anxious and perturbed. He related that a week previously he had one noon found himself in a neighboring city, without any recollection of coming or any explanation of his presence. He returned home and said nothing of the matter to his wife, but tried to go on with his work. He found it quite difficult if not impossible to accomplish anything, however. A week later . . . the day before the visit, he found himself in Newport, R. I. without any recollection or explanation. He felt a vague consciousness that something was not right, the tightness and "dripping" in his throat was noticeable again, and he came in for advice. He was advised to return at once to T—— State Hospital, which he did.

He remained there a month, and was again discharged. Thereafter he was followed in the out-patient-department of the Psychopathic Hospital. He had had no more fugues at the time of submitting this manuscript (June 1, 1919), four months since his second discharge from the State Hospital.

He has, however, passed through a period of depression, which is almost surely a mild form of the depressed phase of cyclothymic (manic-depressive) psychosis. Perhaps the term hypomelancholia, analagous to hypomania, should be utilized. He has continued at work successfully, and his home life is imminently satisfactory. The depression is gradually disappearing.

## SHELLEY AS MYTH-MAKER

BY EUGENE C. TAYLOR

### I

THE adaptability of Freudian psychology, originally developed from a study of neurotic patients, to the interpretation and elucidation of works of genius has been amply demonstrated. The doctrines of wish suppression and transference seem to have removed accounts of the nature of genius, as well as of the origin of human consciousness, from the province of spontaneous generation by attempting to trace the manifestations of libido through their protean changes. As yet, however, the special field of literary criticism has profited only indirectly from psychoanalysis when the psychologists have had recourse to literature to illustrate the various points in their arguments. By this means principally, the similarity of the psychic processes producing dreams, day-phantasies, and certain types of inspirational poetry has been pointed out.<sup>1</sup> In the composition of metaphor and simile especially, where the poet abandons hackneyed comparisons and uses the first image that comes to his mind, the associative faculty has free play. The mechanics of association, for some time familiar to psychologists, are understood to give a clue to the patient's true self by indicating unconscious or repressed predilections and aversions.

An application of the general principles of psychoanalysis in a study of Shelley's poetry not only produces further interesting illustrations of the mechanism of the unconscious but throws illumination, as well, on the works of a poet about whom no two critics have ever agreed. In his "Psychology of the Unconscious," Dr. Jung has expanded the Oedipus-complex hypothesis to such dimensions that he is able to use it as a formula in the interpretation of religious myths, folklore, art, and literature as records in the evolution of thought. Those who are familiar with this remarkable work, and with Shelley's poetry as well, can not but be struck with the almost literal exactness with which this poet's psychic growth followed the evolution of the human mind in general, as it is outlined by Dr. Jung. Conventional modes of criticism have failed to give adequate accounts of the nature

of Shelley's genius for the same reason that anthropologists have failed heretofore to give to ancient religious myths any more than an antiquarian interest; both have been approached as unique manifestations of the will instead of the visible concomitants of a universal and unconscious struggle.

Shelley's poetry produces in those who have a natural feeling for the symbolism of mythology, and a background of experience approximating the poet's, an actual and exhilarating religious experience in which the enthusiast identifies himself with Shelley, the hero. But to those whose repressions have found releases of a different nature, Shelley's poetry will ever seem as empty, remote, and ridiculous as an outworn creed, beautiful, perhaps, in form, but etherial and possessing no contact with reality.

It is of primary importance to understand the function which the composition of poetry played in Shelley's mental economy. Shelley had an unusual amount of vitality and nervous energy which, during his youth, struggled for expression by direct action. Before he wrote "Alastor," his first poem of any importance, he had crowded into the twenty-three years of his existence as much experience as would fill the life of an ordinary person. He attempted to aid insurrections, wrote pamphlets, promoted sea-wall projects, and entered restlessly into anything that seemed to promise improvement for the general welfare of humanity. Though these actions do not show him to have been acquainted with the mechanism of social and political affairs and the power of the mind to resist knowledge, they indicate that he was, in his inexperienced way, working for definite and very actual ends. His letters dealing with business affairs are direct and clear to a degree scarce attained even by the students in the courses in commercial correspondence given by our best universities. He seems to have had a worldly sagacity, if not experience, that well might make those of his critics who call him a pure and disembodied spirit stop to consider, did they not choose to ignore it. But unfortunately, all of Shelley's benevolent attempts to establish reason, and justice, and love on earth met with repulsion and disaster. His university expelled him, his father tried to discipline him, secret service men hounded him, his friends played him false, and to the general disillusion was added the miserable collapse of his married life with Harriet.

Soon after this series of misfortunes, "Alastor" was written, and it begins, as one biographer puts it, "that series of ideal portraits which are in the main incarnations of Shelley's own aspiring and mel-

ancholy spirit." The time of its appearance, as well as its character, calls attention to the compensatory part which poetical composition played in the psychic life of Shelley. It was the critical moment in Shelley's life; thwarted by the exigencies of every-day existence, his libido reverted, to seek within itself, or in the subjective past, the satisfaction which reality had denied it. Unless this portion of the libido, cut off from reality, can find symbolic expression and, by that, release, dangerous repressions and complexes are formed. Though Shelley, after these early experiences, did not enter upon any elaborate schemes for reforming the world, he by no means became a neurotic or a recluse. His life was healthy and normal; he kept up active intercourse with his friends, delighted in domestic life with Mary, traveled, studied, and amused himself with small philanthropical undertakings. Though this side of his life is of no special interest to us at present, its existence must not be overlooked. Critics are too apt indiscriminately to judge poets' lives from their works. Where literary composition takes the place of religion for an author, the character of the writings produced are exactly in contrast with his every-day life. A case in which the reverse is true illustrates the point: Readers of Dr. Samuel Johnson are often surprised to find him at once a man of keen and analytic intelligence and an implicit believer in Christian dogma. But the repressed portion of Shelley's libido found no release in the channels of institutionalized religion; it was necessary for him to build his own religion from the very beginning. It is the purpose of this paper to trace the unconscious development of the religious myth which gave egress to the thwarted desires of Shelley.

Shelley's poetry falls naturally into two classes, representing the two periods of his life: The first is distinguished by the quest motif, and "Alastor" is the only notable poem in the group. The second may be termed "dramas of emancipation," and "Prometheus Unbound" is the consummate example of the type.

## II

The narrative element in "Alastor" is slight. A Poet, nurtured during his youth on philosophy and stories of the mighty past, in early manhood "left his cold fire side and alienated home to seek strange truths in undiscovered lands." The Poet visits the "awful ruins of the days of old," unhindered by any of the impediments common to humanity, for his singular beauty was powerful enough to procure him

food from savage men and their lovely daughters. These always became enamored of him, though their charms never roused him from his metaphysical preoccupation. But trouble was in waiting for him, for

The spirit of sweet human love had sent  
A vision to the sleep of him who spurned  
Her choicest gifts.

The Poet, after wandering through Egypt, Arabia, and Persia, at last found his way to the vale of Cashmere. There one night in a cave, a vision of a "veiled maid" came to his sleep and spoke to him, and

Her voice was like the voice of his own soul  
Heard in the calm of thought: its music long,  
Like woven sounds of streams and breezes, held  
His inmost sense suspended in its web  
Of many-colored woof and shifting hues.

After she had talked and sung a while of "knowledge, and truth, and virtue, and hopes of divine liberty," her love for these abstractions precipitates itself, as it were, into the sexual passion for a very concrete embodiment of them in the form of the Poet himself.

Sudden she rose,  
As if her heart impatiently endured  
Its bursting burden; at the sound he turned,  
And saw by the warm *light of their own life*  
*Her glowing limbs beneath the sinuous veil*  
*Of woven wind*, her outspread arms now bare,  
Her dark locks floating in the breath of night,  
Her beamy bending eyes, her parted lips  
Outstretched and pale, and quivering eagerly.  
His strong heart sunk and sickened with excess  
Of love. He reared his shuddering limbs and quelled  
His gasping breath, and spread his arms to meet  
Her panting bosom:—she drew back awhile,  
Then, yielding to the irresistible joy,  
With frantic gesture and short breathless cry  
Folded his frame in her dissolving arms.

And the philosophical chat with a beautiful lady is consummated in the typical Shelley fashion. It is interesting to note that Shelley's own love affairs generally began with discussions, and his love letters were passionate disquisitions on abstract themes.

The Poet, disquieted by this vision of a perfect female com-

panion, began a long and aimless search for such a person. He did not go, as one might expect, to the inhabited portions of the globe, but

Through Balk, and where the desolated tombs  
Of Parthian kings scatter to every wind  
Their wasting dust, wildly he wandered on,  
Day after day, a weary waste of hours,  
Bearing within his life the brooding care  
That ever fed on its decaying flame.

Occasionally he is given food by the mountaineers' daughters, who, having a practical sense of his ailment,

Press his pallid hand  
At parting, and watch, dim through tears, the path  
Of his departure from their father's door,

while the Poet continued his rapt and ecstatic pilgrimage to nowhere, innocent, at least, of such histrionic exclamations as "Excelsior."

At last he discovers a battered shallop floating near the shore, and embarking, he is carried along by a whirlwind, "as one that in a silver vision floats," for an indefinite period of time. Finally he is borne on some winding stream far up into the Caucasus. Here the boat mysteriously deposits him in the midst of nature's wildest scenery. In a sort of landscape trance, he continues his wanderings for some two hundred and fifty lines of impassioned description, until he expires in a green recess at the artistic moment of moonset.

That the motif of restless wandering which forms the theme of this poem has its basis in sexual passion and longing can hardly be overlooked, as Shelley uses it here with cause and object clearly indicated. But before it is possible to discuss adequately the larger significance of the movement of events in this poem, it will be necessary to examine in some detail the erotic symbolism displayed in the descriptions of individuals and landscapes.

There are in dreams, it has been found, certain images of universal occurrence and others that are purely personal; these the psychoanalyst must attempt to interpret. It is the same in poetry; beside the great mass of uncatalogued but easily understood symbols which a poet uses, there are those which are peculiar to a single poet. These symbols are the result of some repressed wish or former disquieting experience struggling to relieve itself by expression. The symbols are discovered by their recurrence; if there is any constancy in the scenes with which Shelley surrounds his lovers during their moments of high

amorous emotion, or if there is any set form in describing the woman herself, it is from these similarities that we may derive the erotic symbols themselves. Then, when they are repeated in a poem that is not overtly erotic we shall be able to recognize more exactly the poet's emotion as he composed the passage in question.

Man has always found in the contemplation of nature's beauties an expression for thwarted love, a consolation for the sting of lost or departed love, or a stimulant for the ideal love-to-be. It is rarely recognized to what a degree natural scenery can be a repository for sexual passion.<sup>4</sup> Mr. Thomas has remarked in this regard that, "There is much in Shelley and Spencer written since they knew a woman, which has no mention of woman, and yet is full of love and fit to awaken and satisfy love."<sup>2</sup> Another critic has said that Shelley's life was a search for green lawns among hills and forests. Satan, whom Anatole France adores as a sort of world spirit, the embodiment of all human wisdom and experience, makes the following remark, not attempting to conceal the natural symbolism of cloud, hill, and forest:

And for myself who have deeply studied the secrets of nature, seeing but now these clouds curling wantonly round the bosom of the hill, I was filled with mysterious longings that I know nothing of but that they spring from the region of my loins, and that, like the infant Hercules, they showed their strength from the very cradle. And these longings were not merely after rosy mists and floating clouds; they pictured very precisely a wench named Monna Libetta I made acquaintance with once while traveling.<sup>3</sup>

Shelley makes the following statement in his fragmentary essay "On Love":

Hence in solitude, or in that deserted state where we are surrounded by human beings, and they sympathize not with us, we love the flowers, the grass, and the waters and the sky. . . . There is eloquence in the tongueless wind, and a melody in the flowing brooks and the rustling of the reeds beside them, which by their inconceivable relation to something within the soul, awakens the spirit to a dance of breathless rapture, and brings tears of mysterious tenderness to the eyes, like the enthusiasm of patriotic success, or the voice of one beloved singing to you alone.

The surroundings in which the Poet in "Alastor" dreamed his love dream, already quoted, are significant.

The Poet, *wandering on*, through Arabia,  
And Persia, and the wild Carmanian waste,  
And o'er the aërial mountains which pour down  
Indus and Oxus from their icy caves,  
In joy and exultation held his way;



Till in the vale of Cashmire, *far within*  
*Its loneliest dell, where odorous plants entwine*  
*Beneath the hollow rocks a natural bower,*  
*Beside a sparkling rivulet he stretched*  
His languid limbs.

Here, as is usual in Shelley's poetry, a cave-like recess in the mountains, all entwined with odorous plants and containing a rivulet or fountain, is the ideal place for the consummation of love. The cave is not a personal symbol with Shelley;<sup>6</sup> it will be remembered that Virgil could find no place more fitting in which to stage the love between Dido and Aeneas. In the description of the visionary lady, little is unusual save that she is seen through a "sinuous veil of woven wind," by the light of her own life. This image Shelley uses many times and in many variations.

As the shallop in which the Poet embarks during his wanderings not only plays a large part in this poem, but as boats make a constant appearance in Shelley's verse, it will be well to speculate on the emotional significance of this image. Boats were as constantly present in his life as they are in his poetry; sailing and boating had a great fascination for him, and his emotional character was, in a great measure, developed on and near the water. The very cadences of the waves became the cadences of his verse. Some of his most perfect metrical passages are those dealing with sailing and imitating the long sweeping motion, the speeding before the wind, or the short undulations of a choppy sea. Added to this delight in motion was the ever present mystery of the boat and the wind, its pilot,—Shelley's boat was generally piloted by the wind, for he could never understand the mystery of its action, nor bring it about without dangerously gibing.

The aimless wandering, the swift motion, and all the other sensations which one can enjoy in a boat, may have a sexual basis, as the psychoanalysts say, but we do not need a scientist to tell us that these experiences in Shelley's case were associated with love or were accessory to love. Any time a boat is brought into the poems, one is safe in assuming that a woman is, in some way, concerned. It may be the Poet's search in "Alastor," the cruises at the beginning and end of "The Revolt of Islam," the invitation to Emily in "Epipsychidion," the voyage of the poetess in "The Witch of Atlas" in her magic boat, or any of the almost innumerable cases, a beautiful woman is in some way involved, and the incident is told with amorous ardor.

There is again the delight in being swept along with a smooth

and sometimes dizzy motion when the Tartar steed carries Laon and Cythna to safety and love,<sup>7</sup> or when the carriage bears Helen and Lionel to a similar destination.<sup>8</sup> All these modes of transit furnish, as well, the fleeing lovers a sense of security, whether it be from the storms or from the cruelties of "the million-peopled city vast."

While it is impossible to discuss minutely the mass of landscape detail which makes up the last half of "Alastor," a few lines are especially worthy of note as giving an indication of the emotion which inspires the whole. With a sort of "pathetic fallacy," the landscape takes on a sexual coloring in the eyes of the yearning Poet. The swan is seen as an object of envy, because he has a tangible embodiment of his love, and a home to which he is returning, as the Poet says,

Where thy sweet mate will twine her downy neck  
With thine, and welcome thy return with eyes  
Bright in the lustre of their own fond joy.

The oak is seen as a lover,

Expanding its immense and knotty arms,  
to embrace the light beech, and the vines embrace the "wedded  
boughs" as though they loved them, while the  
Ivy clasped  
The fissured stones with its entwining arms.

A peculiar ambiguity exists in "Alastor" which has caused those critics who have observed it no small amount of perplexity. A consideration of this apparent duplicity of purpose leads us at once to the heart of the subconscious conflict that was going on at this time in Shelley's mind, and thence to a true understanding of the quest writings. Shelley prefaced "Alastor" with remarks which show that he intended the poem as a tragedy; the Poet is supposed to have received his "apportioned curse" for avoiding human love and natural affiliations; yet the spirit of "sweet human love" sent a vision poorly calculated to turn the erring Poet from a quest of ideal and abstract beauty to contentment with ordinary earthly forms. The title itself, "Alastor, or The Spirit of Solitude," implies, by the meaning of the Greek word *alastor*, that solitude is an evil thing; yet Shelley is himself the hero of the poem. The vague quest emotions he actually experienced, and the landscape descriptions, which indicate the sincerity of the wandering motif, were written with the passion he felt in the presence of such scenery.

In the preface he says:

They who, deluded by no generous error, instigated by no sacred thirst of doubtful knowledge, duped by no illustrious superstition, loving nothing on this earth, and cherishing no hopes beyond, yet keep aloof from sympathies with their kind, rejoicing neither in human joy nor mourning with human grief; these, and such as they, have their apportioned curse.

It is evident that he is trying intellectually to justify the two opposing tendencies which he finds torturing him with their concealed conflict. There is first the regressive tendency, or that portion of the libido which, thwarted in life, turned to idealism (Platonism) and attempted to escape by a quest of the absolute. Opposed to this is the progressive portion of the libido which found expression in his actual conduct.<sup>12</sup> His practical sense correctly allying itself with the progressive libido, attempted to justify his actions and condemn his phantasies. He had married Harriet, deluded by a "generous error," and having just parted from her to live with Mary Godwin, he found that his life was far from the Sir Galahad sort of career his imagination demanded. These are the two factions at war in "Alastor" producing the noted equivocal result.

It may add to our understanding of the situation to have in mind the typical romantic misapprehension of Platonism. The romanticists imagined that they were at one with Plato in his search for the absolute. They knew the "Symposium" and held love to be the great panacea for earth's ills, but romantic love was the exact opposite of Platonic love in its operation. Platonic love approached the absolute by trying to get away from sex, hoping to be able to contemplate beauty in the abstract. It was apparently constitutionally impossible for Shelley to realize that the Greek method succeeded in its aims only through a sublimation of the sexual passion through homosexuality.<sup>9</sup> Romantic love began with the theory of universal love, but eventually found an embodiment for all its ideals and an expression for all its passion for world reformation in the love of an individual woman. The one mode tends away from sex, as a thing to be avoided, towards the universal; the other moves from the abstract to an apotheosis of sex. In making virtue a passion, the romanticist made passion a virtue.

But returning to the analysis of the quest motif, we are attracted by two fragments in the same vein with "Alastor." These are "Prince Athanase," composed within the year after "Alastor," and "Una Favola," written later in Italian prose. They present two important points for this study: Both fragments are variations of the

search motif of "Alastor" and follow the same general plan and symbolism of that poem. The heroes are the same idealization of Shelley himself; a feature that he was not wholly blind to, for he says in his essay "On Love":

We are born into the world, and there is something within us which, from the instant that we live, more and more *thirsts after its likeness*. *It is probably in correspondence with this law that the infant drains milk from the bosom of its mother; this propensity develops itself with the development of our nature.*<sup>18</sup> We dimly see within our intellectual nature a miniature at it were of our entire self, yet deprived of all that we condemn or despise; the ideal prototype of everything excellent or lovely that we are capable of conceiving as belonging to the nature of man. Not only the portrait of our external being, but an assemblage of the minutest particles of which our nature is composed; a mirror whose surface reflects only the forms of purity and brightness; *a soul within our soul* that describes a circle around its proper paradise, which pain, and sorrow, and evil dare not overleap.

The second important point to note is that these two pieces were never finished, and that for the best of reasons. Though they were to have been carried out in the same general plan of "Alastor," they were to have given expression to the retrogressive portion of the libido only. The visions of the perfect woman in both of these fragments were also to have been the spirit of earthly love and were to have sent the heroes on a similar quest. Yet in these cases earthly love was to have been an error from which the hero was to have been released only by a super-vision of abstract beauty at the moment of his death. The conflict giving rise to the quest motif was already being solved; "The Revolt of Islam" had already been written, and these two fragments, the essay "On Love," together with Platonic idealism, in its romantic misinterpretation, were abandoned forever. Shelley remarks, in a note on "Prince Athanase," "The author was pursuing a further development of the ideal character of Athanase, when it struck him that in an attempt at extreme refinement and analysis, his conceptions might be betrayed into the assuming a morbid character."

After considering these points, the true object of the quest motif should be almost self-evident; the retrogressive libido was leading back to the golden age of childhood and to the mother, but, on account of the appearance of sexual needs, it was blocked by the incest prohibition. The Oedipus-complex results.

There is a convincing amount of evidence to substantiate this view. We know that Shelley was very attached to his mother and sisters. His mother took his part when he quarreled with his father,

and he spoke of her with affection and regard while he had only contempt for his father.<sup>10</sup> That the idea of incest had a strange fascination for him is certain. There are at least six indications of this in his poetry which may as well be mentioned at this time. In the original form of "The Revolt of Islam," the hero and heroine were brother and sister. Rosalind, in "Rosalind and Helen," was cruelly and disastrously separated from her lover when it was discovered too late that he was her brother. Incest forms the theme of "The Cenci." In "Prometheus Unbound," Earth is loved by his sister the Moon, and Prometheus himself loves the universal mother, Asia. In "Epipsychidion," Shelley regrets that the loved Emily is not his sister.<sup>11</sup> All of these expressions come later than "Alastor," and are here cited simply to show what took the place of the abandoned quest theme in the poet's mind, that we may the more clearly realize the true object of the quest.

As for the quest theme itself, it is a recognized indication of the existence of the Oedipus-complex. It has appeared in numerous forms from the beginning of recorded time. The holy grail legends are manifestations of it.<sup>12</sup> The heroes of German romances devoted their lives to the quest of the blue rose, an object equally unattainable.<sup>14</sup> The legends of Ahasuerus, the Wandering Jew, are parallel cases.<sup>15</sup> Shelley had an interest in the Wandering Jew, too, and there is a poem by that name probably composed wholly or in part by him. All of these legends point in one direction, as Dr. Jung says:

The wandering is a representation of longing, of the ever-restless desire, which nowhere finds its object, for, unknown to itself, it seeks the lost mother. . . . But the myth of the hero, however, is, as it appears to me, the myth of our own suffering unconscious, which has an unquenchable longing for all the deepest sources of our being; for the body of the mother, and through it for communion with infinite life in the countless forms of existence.<sup>16</sup>

It must be remembered that Shelley's quest poems were psychologically unsuccessful. "Alastor" alone was completed and only because of its superimposed "moral" element. In each of these pieces the hero, detached from reality, fails in his search for the mother and consequently ends in death. But the libido is not in search of death but life, renewed, eternal, and abundant life which is reached only through the mother and rebirth, according to the universal mythological formula. The incest barrier must be evaded. In his dramas of emancipation, we shall see how Shelley does this.

## III

One is tempted to exclaim after reading the 4860 lines of "The Revolt of Islam" for the first time, "Can this have been written by the man who objected to Christianity because it was 'contrary to reason!'" The poem is a product of phantasy-making, as anyone will agree who has attempted to find in the story it tells, any sense of reality or logical sequence of events. Shelley, in his efforts to be universal in his expression, detached himself more and more from specific incidents and definite characters. This type of composition reached its perfection in "Prometheus Unbound," which is, in fact, an algebric formula for human salvation, the ideal archetype of all religious systems. "The Revolt of Islam" is by no means so perfect a myth as "Prometheus Unbound;" it shows by certain repetitions and crudities in the symbolism and occasional intrusions of the "logical faculty" that Shelley's mind was still in an unsettled state; he had not yet found the medium in which his unconscious could move, unhampered by contingent reality, direct to the object of its eternal desire.

There are, nevertheless, many things of importance for the present study in "The Revolt of Islam." The first form of the story only will be considered. It was originally given to the printer under the title, "Laon and Cythna," and several copies were struck off before the scandalized publisher discovered that the hero and heroine, whose love story forms the framework of the tale, were brother and sister. Shelley at last consented to make the necessary changes, and the poem appeared later with its present title.

Reviewing very briefly the main points of the narrative, we will, at the same time, examine some significant details in the symbolism. Laon tells the story. He and his sister had grown from infancy together in the tyrant-cursed land of "Argolis, beside the sounding sea," and had early entertained themselves conversing on man's injustices to man and prospects of divine freedom. But their happy idyllic life did not last. Childish love grew to sexual love, and before Laon had scarcely experienced its joys, Cythna was taken from him by the tyrant's soldiers, while Laon himself was exposed on a high tower to the hot sun and starvation for attempting to interfere.

The night before the parting, Laon dreams; he tells of it:

Methought, upon the threshold of a cave  
I sat with Cythna; drooping briony, pearled  
With dew from the wild streamlet's shattered wave  
Hung, where we sat to taste the joys which Nature gave.

He dreams of the ecstasy of passion for a time, and then a sense of anxiety and fear enters his sleep; he feels that Cythna is in danger and needs his protection:

The scene was changed, and away, away, away!  
Through the air and over the sea we sped,  
And Cythna in my sheltering bosom lay,  
And the winds bore me.<sup>17</sup>

This is easily recognized as a typical love dream. The symbols are already familiar to us; the cave with its inevitable streamlet is here again, and again there is the delight in being born swiftly before the wind, safe with the beloved one from pursuers.

Laon is rescued from his torture at the critical moment by an old man who gives him a mother's care<sup>18</sup> and carries him away in a "swift boat" to a place of safety. Here he remains for seven years regaining his sanity, until he learns, at last, that a beautiful woman is leading a successful revolt against the tyrant, and, thinking that she may perhaps be Cyntha, he endures many hardships to join the revolutionists. The insurrection goes well for a time, but later fails on account of the monarch's treachery.

Having sacrificed all but their lives, Laon and Cythna, reunited, flee, at the last moment, on a black Tartar steed, to a convenient mountain top. Then ensues one of the most detailed of Shelley's love scenes, surrounded by all the necessary scenery for such an occasion.<sup>20</sup> In this case the cave is replaced by a cavernous stone ruin covered with a "verdurous woof," forming, within, a hollow dome, and somehow, through a shattered portal, a portion of the sky is visible. The winds of autumn, as though "spell bound," had driven dead leaves to form a natural couch in that recess.

While there is not space to consider many of Shelley's shorter poems, the connection of this passage with the famous "Ode to the West Wind," written two years later, should not be overlooked. It is the same wind, after all, the fructifying wind, the west wind bearing spiritual rebirth, that caresses the dead leaves into a bridal bed for Laon and Cythna, which Shelley bids lift him as a leaf from the thorns of life and bear him as a prophecy for the regeneration of mankind.<sup>21</sup>

Unable to manage a streamlet on a mountain top, Shelley introduces a philosophical aside which brings in this necessary image, as well as several others which have already been pointed out.

We know not where we go, or what sweet dream  
May pilot us through caverns strange and fair

Of far and pathless passion, while the stream  
Of life our bark doth on its whirlpools bear,  
Spreading swift wings as sails to the dim air;  
Nor should we seek to know, so the devotion  
Of love and gentle thoughts be heard still there  
Louder and louder from the outmost Ocean  
Of universal life, attuning its commotion.

In the next stanza the lovers are sitting beneath the golden stars, and, as the details of their past fight for liberty fade from their thoughts, a sort of Nirvana of perfect knowledge descends upon them, like light from beyond the atmosphere clothing the "clouds in grace." As they sit thus, a most unusual thing happens; a meteor, seen through a rent in the dome-like roof, lights up, for a moment, the lovely features of Cythna. This is the prelude, as it were, of that "wide and wild oblivion of tumult and of tenderness" which follows and which is so perfectly described as to need no elucidation. But its precipitation by so unusual a natural phenomenon would suggest an investigation of Shelley's use of that image.

"Meteor-happiness" is used in "Queen Mab" to describe the heated and transitory nature of sexual passion. The word *meteor* is used twice in "Rosalind and Helen." In the first instance, Rosalind is telling of her lover, from whom she was parted when he was found to be her brother, and she quotes him as saying that he would like to have his grave on the mountain top, "where weary meteor lamps repose," and all things are eternal. Nothing could be more natural than for the lover just parted to desire a place where his love could be permanent; according to the symbolism, this would be the natural way of expressing such a wish. Without this interpretation the passage is meaningless. The second use of the word is found in the following lines:

And as the meteor's midnight flame  
Startles the dreamer, sun-like truth  
Flashed on his visionary youth  
And filled him, not with love, but faith.

That a meteor could awaken a sleeper to anything but love seemed so unusual to Shelley that he made special note of it. And similarly in twelve other cases, in which he makes use of the word, his feeling for it as a symbol is more or less obvious; it is invariably used with other erotic symbols, in close proximity with a love passage or the description of a woman.<sup>22</sup>



The meteor, as well as the west wind, is, in fact, a universal libido symbol, an accompaniment of the birth of the hero.<sup>23</sup> It will be remembered that Maya, the mother of Buddha, was impregnated by a shooting star, and that a strange star appeared on the evening of the Christian nativity.

These symbols point clearly in one direction; they indicate the significance of the action of the story: this mountain-top nuptial is the ceremony of conception of the hero on the mother spouse; the hero is reproducing himself through the mother.<sup>24</sup> The sister necessarily plays the mother role.<sup>25</sup> The cave-like ruin,<sup>26</sup> the water,<sup>27</sup> and the wind are all symbols of the mother and rebirth. The Tartar steed, appearing as the hero's intelligent mount, is a symbol for the repressed incest wish, tamed and put to good use.<sup>28</sup> The tyrant evidently plays the part of the incest barrier, for he was the cause of Cythna's being taken from Laon. But through self-sacrifice, the power of the tyrant is annulled and the hero is able to achieve his wish.

As has been said, the poem is somewhat unsatisfactory as a coherent myth. The necessities of the story,—slight enough to be sure,—place some restrictions on the ending in particular. Laon and Cythna are finally captured by the tyrant and put to death, but this does not end the tale. A magic boat bears them, for the traditional three days, with their minds "full of love and wisdom," among scenes well suited to love, and finally lands them at the "Temple of the Spirit" where they are to enjoy eternal life and happiness.

#### IV

"Epipsychidion" continues, somewhat more literally than does "The Revolt of Islam," the subject of the quest poems, and celebrates the discovery of "youth's vision," the "sister soul" with whom the wanderer expects to find perfect and lasting peace. Psychologically, the poem accomplishes little; the struggle to liberate the libido is only temporarily successful. This is because oestral love is glorified directly, in the typical romantic fashion. Shelley was still experimenting and had not finally realized that love, like life, must be lost in order to be won, that it must be sacrificed and spiritualized before it can escape from the toils of the incest bond and proceed, renewed and eternal, from the source of all life,—the mother.

In "Epipsychidion," there is much of the symbolism of rebirth, yet the necessary self-sacrifice is lacking, and Emily, after all, is not a

mother surrogate. Shelley wishes she were his sister, and the wish appears again unconsciously when the "lone dwelling," intended for the poet and Emily, is found to have been built "ere crime had been invented, in the world's young prime" by some "tender Ocean King" for "his sister and his spouse."

Shelley first reviews the emotional experiences of his life and attempts to justify himself by stating his philosophy of love. He then dreams of his perfect union with Emily, the latest embodiment of "youth's vision." The vision begins with the line, "Emily a ship is floating on the harbor now," and exhibits the characteristics of a Shelley love dream: the ship, sailing like a bird, the wind, the mountain's brow, the trackless wandering, and the snugness away from the storm. Then the

Isle under Ionian skies,  
Beautiful as a wreck of Paradise,

is described with all the images used in other love scenes. There are the caverns, the undulating tides, thick forests, pine woods, lakes, and fountains.

When they are alone on this "island in the purple east," the lovers will retire to "some cavern hoar," where they can talk, "until thought's melody become too sweet for utterance." As we have noticed, the cave is usually ornamented with a spring or streamlet, and in one case a meteor was seen through an opening in the roof at the moment of consummation. In this case there is no fountain nor meteor, but there is still better indication of the significance of these symbols. The lovers begin by talking philosophy, as usual, but soon words will no longer express the great something ("Intellectual Beauty") which the poet feels to pervade the universe; then words die,

to live again in looks, which dart  
With thrilling tone into the voiceless heart,  
Harmonizing silence without a sound.  
Our breath shall intermix, our bosoms bound,  
And our veins beat together; and our lips,  
With other eloquence than words, eclipse  
The soul that burns between them; and the wells  
Which boil under our being's inmost cells,  
The *fountains* of our deepest life, shall be  
Confused in passion's golden purity,  
As *mountain springs* under the morning Sun,  
We shall become the same, we shall be one  
Spirit within two frames, oh! wherefore two?

One passion in twin-hearts, which grows and grew,  
 Till like two *meteors* of expanding flame  
 Those spheres instinct with it become the same,  
 Touch, mingle, are transfigured; ever still  
*Burning, yet ever inconsumable.*

And again in the last lines of the poem, he calls his soul a meteor piercing love's universe with a flight of fire. "Epipsychidion" is of value in this study, principally because of this clarification of an interesting symbol, and also, of course, on account of its failure to afford a satisfactory release for the libido.

## V

"Prometheus Unbound" dramatizes the struggle of the libido to free itself, to attain that perfect state where it can find expression, where the wish exactly corresponds with the act. Dr. Jung, by "directed thinking," conceives of such a condition. Shelley, following freely the indications of his own unconscious, pictures imaginatively and poetically a desired millennium in which the libido finds no obstacles in its path. The method of Dr. Jung is perhaps practicable, as it has its basis in reality; the formula of Shelley is imaginative, and, as it unintentionally follows in detail the processes common to all religions, offers only compensatory satisfaction by means of symbollic expression. Shelley possessed in a remarkable degree that elemental religious enthusiasm which creates the hero myth as a means of escape from the oppressions which actual life places on the spirit. As Dr. Jung says:

It is as if the poet still possessed a dim idea or capacity to feel and reactivate those imperishable phantoms of long-past worlds of thought in the words of our present-day speech and in the images which crowd themselves into his phantasy. Hauptmann also says: 'Poetic rendering is that which allows the echo of the primitive word to resound through the form.'<sup>39</sup>

The Promethean myth offered Shelley an excellent foundation for his stupendous drama of redemption. Prometheus is in many ways the perfect type of religious hero; he suffers vicariously for mankind to propitiate a hostile god. He appealed particularly to Shelley, because he opposed the tyrannical diety not with cajolery or with defiance, but with patient and loving obstinacy. Satan, Shelley admired and pitied for his indefatigable spirit and the wrongs done him, but Prometheus surpasses Satan as a hero, for

Prometheus is, as it were, 'the type of the highest perfection of moral and intellectual nature impelled by the purest and truest motives to the best and noblest ends.'<sup>40</sup>

The psychological significance of the main features of the myth, as Shelley uses it, is absolutely clear. Prometheus is the further development of Laon, the hero with whom the poet identifies himself. The first act of the drama reveals Prometheus, bound to a precipice among the icy rocks of the Indian Caucasus, suffering Jupiter's torture in order to redeem mankind from the divine tyranny. These details of his suffering are common to many mythologies; Laon, we noted, was bound in a similar manner and on a similar account. This brings us at once to the very point of the story: Jupiter, "Monarch of Gods and Daemons," the abstract symbol of all oppression, is simply a repetition of the tyrant in "The Revolt of Islam," and plays a similar psychological role. He is the incest barrier, the sum of all obstacles that block the libido in its circuitous course, first away from and then back to the mother and eternal happiness.<sup>29</sup>

Shelley's Prometheus does not suffer the crude physical tortures of the old Grecian god; Jove's vultures have invented a more subtle agony. Prometheus says, in apostrophizing Jupiter,

Heaven's wingèd hound, polluting from thy lips  
His beak in poison not his own, tears up  
My heart; and shapeless sights come wandering by,  
*The ghastly people of the realm of dream,*  
Mocking me.<sup>30</sup>

And thus, unexpectedly, Shelley hit intuitively upon the cause of dreams: Jupiter, the incest barrier befouls the natural wish, preventing its expression; dreams are the result.

Prometheus, in the early days of his torture, had hated and cursed Jupiter, but does so no longer, as he says, "I hate no more, as then ere misery made me wise."<sup>31</sup> It is the death of hate in Prometheus which gives the first indication of Jupiter's fall. Through self-sacrifice, the hero has successfully sublimated his desires; the incest barrier is no longer a terror; and hence is no longer hated. Disregarded it must necessarily cease to exist.

But, for dramatic reasons, Prometheus would hear the forgotten curse he had once launched against Jupiter. He calls upon the spirits of the mountains, the springs, and the whirlwinds to repeat the curse, but they are able to tell only of their own sympathetic sufferings when the curse was uttered. One spirit says that

A pilot asleep on the howling sea  
 Leaped up from the deck in agony,  
 And heard, and cried, "Ah, woe is me!"  
 And died as mad as the wild waves be.<sup>32</sup>

A certain critic, lacking Shelley's intuitive insight into the situation, thinks that this sailor should have rejoiced to hear "Heaven's fell King" thus roundly cursed and condemned to eventual oblivion. The pilot's action appears natural, however, when we know the nature of the subconscious struggle to which Prometheus' imprecations gave vent. The pilot, hearing the oaths, assumed, for a moment, the intolerable oppression the hero was enduring, and, being less gigantic, perished of madness, as one should expect.

Prometheus objects because the nature spirits will not repeat to him, who made his agony the barrier of their else all-conquering foe,<sup>33</sup> the words he wishes to hear. Here enters into the drama for the first time the note of infantile memory, or rather an idealized memory in the form of a wish. Prometheus speaks:

Oh rock-embosomed lawns, and snow-fed streams,  
 Now see athwart frore vapours, deep below,  
 Thro' whose o'ershadowing woods I wandered once  
 With Asia, drinking life from her loved eyes;  
 Why scorns the spirit, which informs ye, now  
 To commune with me?<sup>34</sup>

Conventional exegesis interprets Prometheus as Man and Asia as Nature, and the present unhappy state of society is supposed to be due to their separation,—a theory sufficiently vague to have been applied successfully to all the conflicting tendencies of romanticism. The "return to nature" may mean anything from eating raw meat to reading the classics. But if Asia is understood to be Mother Nature, the explanation comes fairly close to the facts, for Asia is, in reality, the second mother, the mother-spouse, the "Daughter of Ocean," and, hence, the sister or mother surrogate toward whom the hero is striving. The Earth, with whom Prometheus next speaks, plays the role of the first, or physical mother, from whom Prometheus becomes more and more detached as his spiritualization advances. The Earth herself dares not repeat Prometheus' curse, for the obvious reason that it was directed against Jove, the incest barrier.

Earth has two tongues, the language of life and the language of death. The significance of this has been a puzzle to commentators. Earth dares not "speak like life" to Prometheus, for that is the lan-

guage which Jupiter knows. When she attempts to speak to him in the language of the dead, Prometheus exclaims:

Obscurely thro' my brain, like shadows dim,  
Sweep awful thoughts, rapid and thick. I feel  
Faint, like one mingled in entwining love;  
Yet 'tis not pleasure.

And Earth answers:

No, thou canst not hear:  
Thou art immortal, and this tongue is known  
Only to those who die.

It would seem that the voice of life, which Jupiter censors, thus hindering the mother speaking as her true self (or rather hindering Prometheus having the mother speak as he would have her), is nothing more than conscious speech and thought. It must be remembered, of course, that the dialogue and the characters in the drama are purely subjective; Earth, Asia, and the rest, speak not as themselves but as the spirit of Prometheus which vitalizes them; each one plays his part in the mind of Prometheus; each expresses only the attitude which Prometheus has toward him. The speech of the dead which produces in Prometheus' mind confused sensations only, and which Jupiter does not hear, must be, then, the symbolic speaking of the unconscious. Earth's enigmatic reply is, consequently, the expression of the hero's desire; Prometheus wishes to be really immortal and realizes that to be so he must first understand the language of the dead; that is, he must release the suppressed tongue or wish, which is accomplished by becoming as one of the dead that he may be born again.

Though Mother Earth is unable to repeat the curse for Prometheus, she tells him that there are two worlds of life and death, as well as two tongues.

One that which thou beholdest; but the other  
Is underneath the grave, where do inhabit  
The shadows of all forms that think and live  
Till death unite them and they part no more;  
Dreams and the light imaginings of men,  
And all that faith creates or love desires,  
Terrible, strange, sublime, and beauteous shapes.<sup>35</sup>

This is as accurate a description of the subconscious as one could wish for. From this realm of the unconscious, where nothing is forgotten,

Prometheus summons, naturally enough, the Phantasm of Jupiter to repeat the curse hurled originally against Jupiter himself. The words are uttered, and, coming from such a source, Jupiter has no power to censor them. But Prometheus now regrets the curse, and the Earth interprets his forgiveness as defeat, thus indicating the further separation of Prometheus from the original mother in the progress of his spiritualization.

Prometheus is then tortured by the Furies who present to him a panorama of the human tragedy of the birth of intelligence, the almost helpless struggle of the libido to free itself from the entanglements which retard it.

Dost thou boast the clear knowledge thou waken'dst for man?  
Then was kindled within him a thirst which outran  
Those perishing waters; a thirst of fierce fever,  
Hope, love, doubt, desire, which consume him for ever.<sup>36</sup>

Yet Prometheus, undismayed, pities those who do not smart under Jupiter's oppressions, who have not gained consciousness of those oppressions, and consequently are not "saved."

The Furies depart, and Earth speaks:

I felt thy torture, son, with such mixed joy  
As pain and virtue give. To cheer thy state  
I bid ascend those subtle and fair spirits,  
*Whose homes are the dim caves of human thought,*  
And who inhabit as the birds the wind,  
Its world-surrounding aether: they behold  
Beyond the twilight realm, as in a glass,  
The future: may they speak comfort to thee!

These spirits are wishes who point toward the future, prophesying the day when Prometheus is to be victorious over Jupiter; and love, now hampered and destructive, shall be free and creative. The act draws to a close when Prometheus, convinced that salvation is achieved by love alone, imagines a new Asia, modeled on his past visions. He thinks of her in true mother symbols.

How fair these air-born shapes! And yet I feel  
Most vain all hope but love; and thou art far,  
Asia! who, when my being overflowed,  
Wert like a golden chalice to bright wine  
Which else had sunk into the thirsty dust.<sup>37</sup>

At the beginning of the second act we are transported from the

desolate scene of Prometheus' suffering to a vale in the Indian Caucasus made lovely by the power of Asia's "transforming presence" alone. Asia's sisters, Panthea and Ione, have free access to Prometheus, it seems, and can bear tidings and words of consolation between the parted lovers. Asia is, in fact, exiled by Jupiter, the tyrant of Prometheus' own making, simply because she is unconsciously reserved for the ultimate and transcendent love which is to recreate the earth.

Disregarding the scene divisions, the significant incidents of the act are these: Asia, who is discovered alone, awaiting Panthea and news from Prometheus, expresses, directly and by the familiar symbolism of her landscape descriptions, the desire and longing that Prometheus has for her. Panthea appears, somewhat belated, pleading as excuse, two dreams. She repeats dreams which she and Ione had had of love with the rejuvenated Prometheus. These dreams, no doubt, indicate the feeling which Prometheus had for Panthea and Ione, who were simply temporary substitutes for Asia. It is in this sense that Panthea is the messenger between the lovers. She and Ione play, perhaps, the part which Shelley's own wives played in actual life; they were less perfect embodiments of the ideal woman-to-be.

But Panthea (or rather Prometheus) had had another dream, for the moment forgotten, which now appears in audible form as the *follow* theme. This dream, assisted by Echoes, voices the exquisite follow lyrics which lead Asia and Panthea to the realm of Demogorgon.

O, follow, follow,  
As our voice recedeth  
Thro' the caverns hollow,  
Where the forest spreadeth.

*etc.*

In the world unknown  
Sleeps a voice unspoken;  
By thy step alone  
Can its rest be broken;  
Child of Ocean!

These are a revival of the wandering motif. This time, however, the unconscious of Prometheus, clarified by the proper suffering, is leading unerringly toward a solution of the dilemma.

The Voices lead Asia and Panthea to a "pinnacle of Rock among Mountains," where Panthea exclaims:

Hither the sound has borne us—to the realm  
Of Demogorgon, and the empty portal,  
Like a volcano's meteor-breathing chasm,



Whence the oracular vapour is hurled up  
 Which lonely men drink wandering in their youth,  
 And call truth, virtue, love, genius, or joy,  
 That maddening wine of life, whose dregs they drain  
 To deep intoxication; and uplift  
 Like Maenads who cry loud, Evoe! Evoe!  
 The voice that is contagion to the world.

This indicates quite clearly the nature of the character, Demogorgon, who has been mentioned before in the drama<sup>41</sup> as inhabiting that realm we called the "subconscious," "beneath the grave," from which place Prometheus summoned the Phantasm of Jupiter. Demogorgon is none other than a personification of the repressed portion of the libido. The *follow* impulse is simply the struggle of Prometheus to bring Asia in contact with Demogorgon, the unfulfilled past, the rankling memory.<sup>42</sup> It will be noticed that Panthea's description of the mechanism of the repressed libido is correct; it is the origin of all religious expression; it is a bursting reservoir of restrained energy.

Spirits again lead them:

To the deep, to the deep,  
 Down, down!  
 Through the shade of sleep,  
 Through the cloudy strife  
 Of Death and of Life;  
 Through the veil and the bar  
 Of things which seem and are  
 Even to the steps of the remotest throne,  
 Down, down!

The similarity of this scene to Faust's descent to the Mothers, admirably interpreted by Dr. Jung,<sup>44</sup> is patent.<sup>43</sup> The descent motif is common to all mythologies; it is evinced in the many stories of the descent of the sun god into the lower regions, preliminary to rebirth and the dawn of a new day; and by Christ's three day's descent into hell. In this case, however, Prometheus does not go into hades himself, but his unconscious sends Asia there to receive the confirmation of motherhood.

Asia and Panthea are next seen in the cave of Demogorgon, in the depths. The deep valley and the cave will be recognized as mother symbols and Demogorgon as the repressed incest wish that inhabits them. Asia puts several general questions to Demogorgon and finally wins the oracular reply which marks the turning point in the drama.

If the abysm  
 Could vomit forth its secrets. . . . But a voice  
 Is wanting, the deep truth is imageless;  
 For what would it avail to bid thee gaze  
 On the revolving world? What to bid speak  
 Fate, Time, Occasion, Chance, and Change? To these  
*All things are subject but eternal love.*<sup>45</sup>

The apotheosis of love is complete: Asia, Prometheus' forward-striving libido, has established communication with the pent-up, incestuous, and retrogressive libido which is immediately drained into the new, progressive form. Asia is now the perfect mother surrogate, and, like the mythical heroes who return from the dark cavern with the treasure of swelling life,<sup>46</sup> she ascends, transfigured as the eternal mother.

A chariot, driven by the Spirit of the Hour of Prometheus' release, appears, and the Spirit addresses Asia:

My coursers are fed with the lightning  
 They drink of the whirlwind's stream  
 And when the red morning is bright'ning  
 They bathe in the fresh sunbeam.  
 They have strength for their swiftness I deem,  
 Then ascend with me, Daughter of Ocean.

One recalls at once the Tartar steed in "The Revolt of Islam" and the lines of Faust, quoted by Dr. Jung:

A fiery chariot borne on boyant pinions,  
 Sweeps near me now.

It is the proper vehicle in which to ascend to a cloud above the mountains, where Asia's transfiguration is to be completed. Panthea beholds the change in Asia, and voices Prometheus' desire which has now expanded until the whole universe feels it sympathetically:

Hear'st thou not sounds i' the air which speak of love  
 Of all articulate beings? Feelest thou not  
 The inanimate winds enamoured of thee?

A Voice in the air, representing Prometheus, then sings a love lyric which, in its fervor and symbolism, surpasses all others in beauty:

Child of Light! thy limbs are burning  
 Thro' the vest which seems to hide them;  
 As the radiant lines of morning  
 Thro' the clouds ere they divide them;  
 And this atmosphere divinest  
 Shrouds thee wheresoe'er thou shinest.

*etc.*

We noted a similar image, it will be remembered, in the description of the veiled maid in "Alastor." Asia answers with the lyric, "My soul is an enchanted boat," the last stanza of which shows that Shelley had a true feeling for the symbolism of sacrifice, death, and rebirth.

We have past Age's icy caves,  
 And Manhood's dark and tossing waves,  
 And youth's smooth ocean, smiling to betray:  
 Beyond the glassy gulphs we flee  
 Of shadow peopled Infancy,  
 Through Death and Birth, to a diviner day.

The opening of the third act reveals Jupiter on the throne. His period is short, however, for the car of the hour arrives, carrying Demogorgon who descends and pronounces Jupiter's doom. Jupiter falls, for when the subconscious has been revealed and the retrogressive libido given progressive expression, the incest barrier must necessarily cease to exist. But as he falls, Jupiter shouts to Demogorgon, "We two will sink on the wide waves of ruin." And, as a matter of fact, Demogorgon appears no more in the drama, except in a sort of curtain-call at the end of the jubilee of the last act, to bow and tell how it was all done, but even here his character is entirely altered. The prophetic Demogorgon is gone with Jupiter, for there is no repressed libido in the perfect state,—only a conscious movement toward the object of desire.

Prometheus is released and immediately says:

Asia, thou light of life,  
 Shadow of Beauty unbeheld: and ye,  
 Fair sister nymphs, who made long years of pain  
 Sweet to remember, thro' your love and care:  
 Henceforth we will not part. *There is a cave*  
 All overgrown with trailing odorous plants,  
 Which curtain out the day with leaves and flowers,  
 And paved with veined emerald, and a fountain  
 Leaps in the midst with an awakening sound.

This is the cue for the universe to be seized with a gigantic love trance, known as the millennium. The remainder of the play is a paean of exaltation over the freedom of love, a rhapsody of liberation. Earth, no longer Mother Earth but a young male spirit, in love with his sister the Moon, strikes the dominant theme:

The joy, the triumph, the delight, the madness!  
 The boundless, overflowing bursting gladness,  
 The vaporous exultation not to be confined!  
 Ha! Ha! the animation of delight  
 Which wraps me, like an atmosphere of light,  
 And bears me as a cloud is borne by its own wind.

## NOTES

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3. Anatole France, *The Well of St. Clare*, "The Human Tragedy," Chap. XVI.
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11. "Epipsychidion," l. 45; l. 492.
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19. "The Revolt of Islam," Canto III:XXXIII-XXXIV.
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25. *Ibid.*, p. 265.
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27. *Ibid.*, p. 224, and p. 384.
28. *Ibid.*, pp. 308-316.
29. *Ibid.*, p. 427.
30. "Prometheus Unbound," I:34.
31. *Ibid.*, I:57.
32. *Ibid.*, I:95.
33. *Ibid.*, I:118.
34. *Ibid.*, I:120.
35. *Ibid.*, I:196.
36. *Ibid.*, I:543.

- 37. Ibid., I:557.
- 38. Ibid., I:808.
- 39. Jung, Op. Cit., p. 338.
- 40. Shelley, "Introduction to Prometheus Unbound."
- 41. "Prometheus Unbound," I:207.
- 42. Jung, Op. Cit., p. xiii.
- 43. Goethe, *Faust* (tr. Bayard Taylor), Part II, p. 60.
- 44. Jung, Op. Cit., p. 231.
- 45. "Prometheus Unbound," II:IV:114.
- 46. Jung, Op. Cit., p. 409.

# THE SOURCE AND AIM OF HUMAN PROGRESS

(A STUDY IN SOCIAL PSYCHOLOGY AND SOCIAL PATHOLOGY)

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**A**BOUT twenty-five years ago I published in my *Psychology of Suggestion* a series of experiments on Normal and Abnormal Suggestibility, carried on at various laboratories including my own laboratory. I developed the psycho-physiological theory of the subconscious, traced the causation and nature of subconscious activities, and worked out the laws of normal and abnormal suggestibility. The following pertains to our present subject:

The nervous centers of man's nervous system, if classified as to function, may be divided into inferior and superior. The inferior centers are characterized by reflex and automatic activities. A stimulus excites the peripheral nerve-endings of some sense-organ. At once a nerve-current is set up in the afferent nerves. The current in its turn stimulates a plexus of central ganglia, the nerve energy of which is set free, and is propagated along the efferent nerves towards muscles and glands,—secretions, muscular contractions and relaxations are the result; biologically regarded, various reactions and adjustments follow.

Ingoing and outgoing nerve currents with their various end-reactions may be modified by the nerve centers. Nerve currents may be intensified, decreased in energy, or even entirely inhibited by central ganglia or by their mutual interaction and interferences. Sherrington and other physiologists have by a number of experiments formulated some of the important principles of such physiological activities. The law of inhibition or interference early formulated by Ziehen may suffice: "If an excitation of a definite intensity ( $m$ ) take place in one cortical element ( $b$ ), and another excitation of a different intensity ( $n$ ) take place at the same time in another cortical element ( $c$ ) which is connected by a path of conduction with element ( $b$ ), the two intensities of excitation may modify each other."

Although such modifications frequently occur, it nevertheless remains true that the inferior nerve-centers are of a reflex nature.

No sooner is the nerve-energy of a lower center set free than at once it tends to discharge itself into action. Thus every sensation, perception, feeling, emotion, thought, or belief, if left uncontrolled, tends to be translated into some appropriate movement, action, or reaction. The physiological process of setting free the nerve energy in a central ganglion, or in a system of central ganglia, is accompanied by activity in the simpler, but more organized, more integrated nerve centers, and by the lower psychic functions of simple sentience, sensibility; and in the more complex, but less integrated, less organized centers, by the higher psychic functions of consciousness, such as sensations, precepts, images, ideas, and emotions.

Turning now to the superior or the highest nerve-centers, we find that they are characterized by the highest mental functions, thought and reasoning, choice and will. A number of impressions, sensations and precepts reach those thought and will-centers; then a critical, a sifting, a selecting, a controlling or inhibitory process begins. Some of the mental states are modified and are permitted to develop within certain limits, others are given full play, while still others, and possibly the majority of them, are rejected and inhibited, not taking effect in reactions and adjustments to the environment.

The inhibited states belong to the great number of possible states with their reactions out of which selection is made by the critical thought and will-centers. These mental states, images, ideas, and feelings with their end-reactions, out of which selection is made, Galton aptly terms "the antechamber of consciousness." They are on the margin of consciousness, and are partly of a conscious and partly of a subconscious character. To quote from Galton: "Although the brain is able to do fair work fluently in an automatic way, and though it will of its own accord, strike out sudden and happy ideas, it is questionable if it is capable of working thoroughly and profoundly without past or present effort. The character of this effort seems to me chiefly to lie in bringing the contents of the antechamber more nearly within the ken of consciousness, which then takes comprehensive note of all its contents, and compels the logical faculty to test them *seriatim* before selecting the fittest for a summons to the presence of the chamber. The thronging of the antechamber is, I am convinced, beyond my control."

Mental activity in its rational or integrative aspects whether logical, moral, or aesthetic, is essentially selective in character. The logical process draws definite conclusions from given premises; the

moral man or the ethical thinker regards definite relations in behavior in response to definite relations in the environment as right or wrong; while the artist or the one who enjoys artistic work appreciates definite relations and combinations as the artistic and the beautiful. Even in ordinary life where the process of selection is not so rigid as in the arts, sciences, and philosophy, still the process of attention for the maintenance of rationality is a severe judge in the rejection of unfit streams of thoughts and ideas that may present themselves in the antechamber of consciousness, as Galton terms the state of the mind. In a train of ideas, few ideas of the total mass that offer themselves are accepted, or utilized by the guiding, controlling consciousness to be acted upon in the life adjustments of the organism. This holds true not only of the material needs, but more especially of the spiritual interests of man. The higher the level of mental activity, the more definite, the more precise, the more rigid the selective process becomes. The stream of consciousness, as it rushes along, selects, synthetizes or, physiologically speaking, integrates those trains of ideas which help most effectually to reach the destination, or, in other words, are especially fit for the purpose in hand.

This selective will-activity of the highest nerve-systems, given in the will-effort of selection, forms the very nucleus of man's rational life.

These superior selective "choice and will centers," localized by Ferrier, Wundt, Bianchi and others, in the frontal lobes, and by others in the upper layers of the cortex, on account of their selective and inhibitory functions, may be characterized as selective and inhibitory centers *par excellence*.

Man's nerve organization may thus be classified into two main systems: I. the inferior, including the reflex, the instinctive, the automatic centres; and II. the superior, the controlling, selective, and inhibitory brain-centres of the cortex. Parallel to the double systems of nerve-centres, we also have a double mental activity, or double-consciousness as it is sometimes called, the inferior, the organic, the instinctive, the automatic, the reflex consciousness, or briefly termed the *sub-consciousness*; and the superior, the choosing, the willing, the critical, the *will-consciousness*. This controlling will-consciousness may also be characterized as the guardian-consciousness of the species and of the individual.

From an evolutionary, or teleological standpoint, we can well realize the biological function or importance of this guardian-consciousness. The external world bombards the living organism with



innumerable stimuli. From all sides thousands of impressions come crowding upon the senses of the individual. Each impression with its appropriate receptors has its corresponding system of reactions which, if not modified or counteracted, may end in some harmful or fatal result. It is not of advantage to the organism of a highly complex organization to respond with reactions to all impressions coming from the external environment. Hence, that organism will succeed best in the struggle for existence that possesses some selective, critical, inhibitory "choice and will" centres. The more organized and the more sensitive and delicate those centres are, the better will the organism succeed in its life existence. The guardian-consciousness wards off, as far as it is possible, the harmful blows given by the stimuli of the external environment. In man, this same guardian consciousness keeps on constructing, by a series of elimination and selection, a new environment, individual and social, which leads to an ever higher and more perfect development and realization of the inner powers of individuality and personality.

Under normal conditions man's superior and inferior centres with their corresponding upper, critical, controlling consciousness together with the inferior automatic, reflex centres and their concomitant subconscious consciousness keep on functioning in full harmony. The upper and lower consciousness form one organic unity,—one conscious, active personality. Under certain abnormal conditions, however, the two systems of nerve-centres with their corresponding mental activities may become dissociated. The superior nerve-centers with their critical, controlling consciousness may become inhibited, split off from the rest of the nervous system. The reflex, automatic, instinctive, subconscious centres with their mental functions are laid bare, thus becoming directly accessible to the stimuli of the outside world; they fall a prey to the influences of external surroundings, influences termed suggestions. The critical, controlling, guardian-consciousness, being cut off and absent, the reduced individuality lacks the rational guidance and orientation, given by the upper choice and will-centres, becomes the helpless plaything of all sorts of suggestions, sinking into the trance states of the subconscious. It is this subconscious that forms the highway of suggestions, suggestibility being its essential characteristic. The subconscious rises to the surface of consciousness, so to say, whenever there is a weakening, paralysis, or inhibition of the upper, controlling will and choice-centres, or in other words, whenever there is a disaggregation of the superior

from the inferior nerve-centers, followed by an increase of ideo-sensory, ideo-motor, sensori-secretory, reflex excitability; and ideationally, or rationally by an abnormal intensity and extensity of suggestibility. In order to bring to the fore subconscious activities with their reflex, automatic psycho-motor reactions by removal of the upper consciousness I have found requisite, in my investigations, the following conditions:

**Normal Suggestibility,—Suggestibility in the Normal, Waking State:**

- (1) Fixation of the Attention.
- (2) Distraction of the Attention.
- (3) Monotony.
- (4) Limitation of Voluntary Activity.
- (5) Limitation of the Field of Consciousness.
- (6) Inhibition.
- (7) Immediate Execution of the Suggestion.

**Abnormal Suggestibility,—Suggestibility in Hypnotic and Trance States:**

- (1) Fixation of the Attention.
- (2) Monotony.
- (3) Limitation of Voluntary Activity.
- (4) Limitation of the Field of Consciousness.
- (5) Inhibition.

The nature of abnormal suggestibility, the result of my investigations given in the same volume, is a disaggregation of consciousness, a cleavage of the mind, a cleft that may become ever deeper and wider, ending in a total disjunction of the waking, guiding, controlling guardian-consciousness from the automatic, reflex, subconscious consciousness. . . . Normal suggestibility is of like nature,—it is a cleft in the mind; only here the cleft is not so deep, not so lasting as in hypnosis or in the other subconscious trance states; the split is here but momentary; the mental cleavage, or the psycho-physiological disaggregation of the superior from the inferior centres with their concomitant psychic activities is evanescent, fleeting, often disappearing at the moment of its appearance.

In the same work the following laws of suggestibility were formulated by me:

(I) *Normal suggestibility varies as indirect suggestion and inversely as direct suggestion.*

(II) *Abnormal suggestibility varies as direct suggestion and inversely as indirect suggestion.*

A comparison of the conditions of normal and abnormal suggestibility is valuable, since it reveals the nature of suggestibility, and discloses its fundamental law. An examination of the two sets of conditions shows that in abnormal suggestibility two conditions, distraction of attention and immediate execution are absent, otherwise the conditions are the same. This sameness of conditions clearly indicates the fact that both normal and abnormal suggestibility flow from some one common source, that they are of like nature, and due to similar causes. Now a previous study led us to the conclusion that the nature of abnormal suggestibility is a disaggregation of consciousness, a slit produced in the mind, a crack that may become wider and deeper, ending in a total disjunction of the waking, guiding, controlling consciousness from the reflex consciousness. Normal suggestibility is of like nature, it is a cleft in the mind; only here the cleft is not so deep, not so lasting as it is in hypnosis, or in the state of abnormal suggestibility. The split is here but momentary, disappearing almost at the very moment of its appearance.

This fleeting, evanescent character of the split explains why suggestion in the normal state, why normal suggestibility requires immediate execution as one of its indispensable conditions. We must take the opportunity of the momentary ebb of the controlling consciousness and hastily plant our suggestion in the soil of reflex consciousness. We must watch for this favorable moment, not let it slip by, otherwise the suggestion is a failure. Furthermore, we must be careful to keep in abeyance, for the moment, the ever-active waves of the controlling consciousness. We must find for them work in some other direction; we must divert, we must distract them. That is why normal suggestibility requires the additional conditions of distraction and of immediate execution. For in the waking state the waking, controlling consciousness is always on its guard, and, when enticed away, leaves its ground only for a moment. In normal suggestibility the psychic split is but faint; the lesion, effected in the body consciousness, is superficial, transitory, fleeting. In abnormal suggestibility, on the contrary, the slit is deep and lasting,—it is a severe gash. In both cases, however, we have a removal, a dissociation of the waking from the subwaking, reflex consciousness, suggestion becoming effected only through the latter. For suggestibility is the attribute of the subwaking, reflex consciousness.

A comparison of the two laws discloses the same relation. The two laws are the reverse of each other, thus clearly indicating the presence of a controlling inhibiting conscious element in one case, and its absence in the other. In the normal state we must guard against the inhibitory, waking consciousness, and we have to make our suggestion as indirect as possible. In the abnormal state, on the contrary, no circumspection is needed; the controlling, inhibitory waking consciousness is more or less absent, the subwaking, reflex consciousness is exposed to external stimuli, and our suggestions are therefore the more effective, the more direct we make them. Suggestibility is a function of disaggregation of consciousness, a disaggregation in which the subwaking, reflex consciousness enters into direct communication with the external world. The general law of suggestibility is:

*Suggestibility varies as the amount of disaggregation, and inversely as the unification of consciousness.*

"The problem that interested me most was to come into close contact with the subwaking self. What is its fundamental nature? What are the main traits of its character? Since in hypnosis the subwaking self is freed from its chains, is untrammelled by the shackles of the upper, controlling self, since in hypnosis the underground self is more or less exposed to our view, it is plain that experimentation on the hypnotic self will introduce us into the secret life of the subwaking self; for as we pointed out the two are identical. I have made all kinds of experiments, bringing subjects into catalepsy, somnambulism, giving illusions, hallucinations, post-hypnotic suggestions, etc. As a result of my work one central truth stands out clear, and that is the *extraordinary plasticity of the subwaking self*.

"If you can only in some way or other succeed in separating the primary controlling consciousness from the lower one, the waking from the subwaking self, so that they should no longer keep company, you can do anything you please with the subwaking self. You can make its legs, its hands, any limb you like, perfectly rigid; you can make it eat pepper for sugar; you can make it drink water for wine; feel cold or warm; hear delightful stories in the absence of all sound; feel pain or pleasure; see oranges where there is nothing; you can make it eat them and enjoy their taste. In short, you can do with the subwaking self anything you like. The subwaking consciousness is in your power, like clay in the hands of the potter. The nature of its plasticity is revealed by its extreme suggestibility.

"I wanted to get an insight into the very nature of the subwaking self; I wished to make a personal acquaintance with it. 'What is its *personal* character?' I asked. How surprised I was when, after a close interrogation, the answer came to me that there can possibly be no personal acquaintance with it,—for *the subwaking self lacks personality.*"

Under certain conditions a cleavage may occur between the two selves, and then the subwaking self may rapidly grow, develop, and attain (apparently) the plane of self-consciousness, get crystallized into a person, and give itself a name, imaginary, or borrowed from history. (This accounts for the spiritualistic phenomena of personality, guides, controls, and communications by dead personalities, or spirits coming from another world, such as have been observed in the case of Mrs. Piper and other mediums of like type; it accounts for all the phenomena of multiple personality, simulating the dead or the living, or formed anew out of the matrix of the subconsciousness. All such personality metamorphoses can be easily developed, under favorable conditions, in any psycho-pathological laboratory). The newly crystallized personality is, as a rule, extremely unstable, ephemeral, shadowy in its outlines (spirit-like, ghost-like), tends to become amorphous, being formed again and again under the influence of favorable conditions and suggestions, rising to the surface of consciousness, then sinking into the subconsciousness, and disappearing, only to give rise to new personality metamorphoses, bursting like so many bubbles on the surface of the upper stream of consciousness.

A few quotations from my work on the subject of the subconscious may help to elucidate the main traits of the lower secondary self with its extreme suggestibility and automatic, reflex consciousness:

"The subwaking self is extremely *credulous*; it lacks all sense of the true and the rational. 'Two and two make five.' 'Yes.' Anything is accepted, if sufficiently emphasized by the hypnotizer. The suggestibility and imitativeness of the subwaking self were discussed by me at great length. What I should like to point out here is the extreme *servility* and *cowardliness* of that self. Show hesitation, and it will show fight; command authoritatively, and it will obey slavishly.

"*The subwaking self is devoid of all morality.* It will steal without the least scruple; it will poison; it will stab; it will assassinate its best friends without the least scruple. When completely cut off from the waking person, it is precluded from conscience."

This explains the many atrocities committed by the Assyrian,

Macedonian, Roman or German soldier who by a long course of military training had fallen into the degraded and wretched state of the irresponsible, slavish, sub-conscious self.

"The subwaking self dresses to fashion, gossips in company, runs riot in busniess-panics, revels in the crowd, storms in the mob, parades on the streets, drills in the camp, and prays in revival meetings. Its senses are acute, but its sense is *nil*. *Association by contiguity*, the automatic, reflex mental mechanism of the brute, is the only one it possesses.

"*The subwaking self lacks all personality and individuality; it is absolutely servile. It has no moral law, no law at all.* To be a law unto one-self, the chief and essential characteristic of personality, is the very trait the subwaking self so glaringly lacks.

"*The subwaking self has no will; it is blown hither and thither by all sorts of incoming suggestions. It is essentially a brutal self.*

"The primary self alone possesses true personality, will, and self-control. The primary self alone is a law unto itself,—a personality having the power of investigating its own nature, of discovering faults, creating ideals, striving after them, struggling for them, and by continuous efforts of will attaining to higher and higher stages of personality."

Suggestibility is a fundamental attribute of man's nature. We should, therefore, expect that man in his social capacity would manifest this general property; and such do we actually find to be the case. What is required is the bringing about of a disaggregation in the social consciousness. Such a disaggregation may either be fleeting, unstable, the type is that of normal suggestibility; or the disaggregation may become stable, the type is then that of abnormal suggestibility. The one is the suggestibility of the crowd, the latter that of the mob. In the mob direct suggestion is effective, in the crowd indirect suggestion. The clever stump orator, the politician, the preacher fixes the attention of the crowd on himself, while interesting the hearers in his "subject." The orator, the preacher, or the demagogue, the politician, distracts the attention of the crowd by his stories, frequently giving his suggestion in some indirect and striking way, winding up the long yarn by a climax, requiring immediate execution of the suggestion.

The condition of limitation of voluntary movements is of paramount importance in suggestibility in general, since it brings about a narrowing down of the field of consciousness which of all other condi-

tions is most favorable to dissociation. The condition of limitation of voluntary movements is one of the prime conditions that helps to bring about a deep, a more or less lasting dissociation in the consciousness of the crowd,—the crowd passes into the mob-state. A large gathering, on account of the cramping of voluntary movements, easily falls into a state of abnormal suggestibility. Large assemblies carry within themselves the germs of the possible mob. The crowd contains within itself all the elements and conditions favourable to a disaggregation of consciousness. What is required is that an interesting object, or that some sudden, violent impression should strongly fix the attention of the crowd, and plunge it into that state in which the waking personality is shorn of its dignity and power, and the naked, subwaking self remains alone to face the external environment.

Besides limitation of the voluntary movements and contraction of the field of consciousness, there are also present in the crowd, the matrix of the mob, the conditions of monotony and inhibition. When the preacher, the politician, the stump orator, the ringleader, the hero, gains the ear of the crowd, an ominous silence sets in, a silence frequently characterized as "awful." The crowd is in a state of overstrained expectation; with suspended breath it watches the hero or the interesting, all absorbing object. Disturbing impressions are excluded, put down, or driven away by force. All interfering influences and ideas are inhibited. The crowd is entranced, and rapidly merges into the mob-state.

The suggestion given to the entranced crowd by the "master" or hero spreads like wild fire. The suggestion reverberates from individual to individual, gathers strength, becomes overwhelming, driving the crowd into a fury of activity, into a frenzy of excitement. As the suggestions are taken up by the mob and executed, the wave of excitement rises higher and higher. Each fulfilled suggestion increases the emotion of the mob in volume and intensity. Each new attack is followed by a more violent paroxysm of furious, demoniac frenzy. The mob is like an avalanche, the more it rolls, the more menacing and dangerous it grows. The suggestion given by the hero, by the ringleader, by the master of the moment, who simply gives expression to the subconscious passions of the mob, is taken up by the crowd, and is reflected and reverberated from man to man, until every soul is dizzied, and every person is stunned. In the entranced crowd, in the mob, every one influences and is influenced in his turn; every one suggests and is suggested to; until the surging billow of excitement and mob-energy swells and rises, reaching a formidable height.

Let the crowd, the mass or the mob, be indicated by  $m$  and its energy by  $E$ , the energy of another mass  $m_1$  be  $E_1$ . On account of the interaction of the masses the result will be  $m$  multiplied by  $m_1$  or  $mm_1$  and their energies  $EE_1$ ; the energies of masses  $m, m_1, m_2$ , give  $mm_1m_2$  or  $EE_1E_2$ . If the masses are equal, the energies are respectively  $E, E^2, E^3$ , and so on. While the masses grow by equal increments of  $m$ , the energies increase by the factor  $E$ . The masses are respectively:  $m, 2m, 3m, 4m, 5m$ , and so on, the corresponding energies are:  $E^1, E^2, E^3, E^4, E^5$ . *Mob-energy rises as the powers of the mass.* We may say then that while *the masses increase in arithmetical progression, the energies of the masses increase in a geometrical progression.\** In other words, *the masses grow as the logarithms of their energies.* In short, if  $M$  is the mass of the mob, then  $M = \text{Log } E$ .

If  $m$  is 10 and  $E$  is 10, then a mass of  $2m$  gives an energy of  $10^2$ , a mass of  $3m$  yields an energy of  $10^3$ , a mass of  $4m$  gives an energy of  $10^4$ , or 10,000, a mass of  $5m$  gives an energy of  $10^5$  or 100,000. While the mass increases in an arithmetical progression of 10, the mass energy grows in a geometrical progression of 10. Briefly stated, *the mass grows as the logarithm of mass-energy.*

A knowledge of the subconscious and of the laws of suggestibility are of vital consequence in Social Psychology in general and in Social Pathology in particular. As the great Sociologist, Tarde, points out: "To understand thoroughly the essential social fact, as I perceive it, knowledge of the infinitely subtle facts of mind is necessary,—the roots of what seems to be even the simplest and most superficial kind of Sociology strike far down into the depths of the most inward and hidden parts of Psychology and Physiology."

In surveying human life in its organized capacity, from the lowest to the highest forms of social organizations in the great wealth of their manifestations, economic, tribal, totemic, sex and family relationship, marriage, art, morals, religion, magic, beliefs, practices, rites, taboos, and other social phenomena, the student of Social Psychology cannot help being impressed with the important rôle played by the instinctive, automatic, reflex consciousness, or the subconscious with its normal and abnormal suggestibility in the protean forms and activities taken by the metamorphic and anamorphic

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\*This law, first formulated in "The Psychology of Suggestion," is termed by Professor Giddings in his "Sociology" as "The Law of Extent and Intensity of Social Action." Giddings phrases the Law as follows: "The Law of Extent and Intensity of Social Action is: Impulsive social action tends to extend and intensify in geometrical progression."



social spirit of aggregate humanity. If there is truth in Aristotle's dictum that man is a social or rather a gregarious animal, or in that of Tarde's and others that man is an imitative animal, there is a deeper truth in the more fundamental view, which really includes all others, that man is by nature, or by his subconscious nature, a suggestible animal.

Man's subconsciousness, with its conditions and laws of normal and abnormal suggestibility, works on a large scale in the social evolution of the human race. In the course of human development and the incessant building of new social structures with their corresponding functions we find the activities of the upper, controlling, regulating, ordering, critical consciousness, rationalizing the formative activities of the subconscious with its characteristic reflex, instinctive, automatic, suggestible consciousness. The rational progress of human societies depends on the interaction and synthesis of the upper and lower consciousness. When, however, the upper, critical consciousness is kept in abeyance, or is dissociated from the lower self, society becomes subject to all forms of social diseases, mental epidemics, mob-actions, riots, horde-attacks, blind slaughters, massacres, pogroms, revolts, mass upheavals, mass movements on a great scale, such as are manifested in migrations of tribes and nations, or in civil, national, and world-wars. The very weakening of the controlling social consciousness causes the social mind to become predisposed to overaction of the social subconsciousness with its abnormal suggestibility and consequent social, psychic diseases and mental epidemics of all sorts and description. For a clear understanding of Social Psychology and Social Pathology one should keep in mind the following laws formulated in my "*Psychology of Suggestion*":

(I) Social subconsciousness is the vehicle of suggestibility and more specially of abnormal suggestibility.

(II) Suggestibility varies as the amount of disaggregation of social consciousness and inversely as the unification or synthesis of social consciousness.

(III) Social, impulsive, reflex action is in inverse relation to the synthesis of the upper consciousness and the reflex subconscious.

(IV) While the social aggregate grows in an arithmetical progression, the emotional excitement of the aggregate grows in a geometrical progression; or the emotional energy rises as the powers of the mass, the mass varying as the logarithm of its energy.

(V) The greater the uniformity of the constituent units of the social mass, the greater the mass-energy, and the more powerful are

the effects of social suggestibility. In other words, social suggestibility is directly proportional to the uniformity of the social aggregate.

(VI) Individuality is in inverse relation to the social mass.

(VII) The conditions of normal and abnormal suggestibility, such as Fixation of the Attention, Limitation of Activity, Suppression of Variations, Monotony, Contraction of the Field of Social and Individual Consciousness, and inhibition of non-conforming ideas, ideals, and beliefs, leading to a weakening and paralysis of the critical consciousness, tend to the laying bare of the suggestible subconscious with its consequent deleterious effects. The main principles of social psychology, outlined in my *"Psychology of Suggestion"* were adopted by Prof. Ross in his *"Social Psychology"*:

"In the normal state" Professor Ross writes "suggestion should be as indirect as possible in order to catch the inhibitory, waking self 'off its guard.' In the abnormal state no circumspection is needed; the controlling, inhibitory, waking consciousness is more or less dormant, the subwaking reflex consciousness is exposed, and our suggestions are more effective the more direct they are." Ross then quotes our general law of suggestibility formulated in *The Psychology of Suggestion*; "Suggestion (suggestibility) varies as the amount of disaggregation and inversely as the unification of consciousness."

"The primary self is the self with personality and will. . . . It alone embodies the results of reflection, and it alone holds life true to a personal ideal. It is the captain of the ship. . . . If now this primary self is overthrown or put to sleep, the subwaking self becomes the master of the ship. This (subconscious) self has little reason, will, or conscience. . . . It is imitative, servile, credulous, swung hither and thither by all sorts of incoming suggestions. The life it prompts cannot be stable, self consistent, integrated. It is low on the scale of personality, and a situation that commits to its hands the helm of the individual life is fraught with disaster." From this standpoint Ross discusses social suggestibility, the crowd, and the mob mind, worked out in my work on the psychology and pathology of the individual and society.

Ross further realizes the import in the domain of social psychology of the factors and conditions of normal and abnormal suggestibility as developed in my *"Psychology of Suggestion."* Thus he writes: "Sidis goes further in declaring 'If anything gives us a strong sense of our individuality, it is surely our voluntary movements. We

may say that the individual self grows and expands with the increase of variety and intensity of its voluntary activity; and conversely, the life of the individual self sinks, shrinks with the decrease of variety and intensity of voluntary movements.' Here, perhaps, is the reason why individuality is so wilted in a dense throng." . . . "A crowd self will not arise unless there is an orientation (fixation) of attention, expectancy, narrowing of the field of consciousness that excludes disturbing impressions."

"With the growing fascination of the mass for the individual, his consciousness contracts to the pin point of the immediate moment, and the volume of suggestion needed to start on its conquering career becomes less and less. He becomes automatic, in a way unconscious. The end is a tranced impressionable condition akin to hypnosis. . . . The crowd self is ephemeral. . . . The crowd is unstable. . . . The crowd self is *credulous* . . . Rational analysis and test are out of the question. *The faculties we doubt with are asleep* . . . The crowd self is *irrational* . . . His (man in the crowd) actions are near to reflexes . . . The crowd self shows *simplicity* . . . Finally, the crowd self is *immoral*. . . ."

Similarly Professor Giddings of Columbia University refers to these laws and their corollaries in his *Sociology*: "There are three of these laws" Professor Giddings writes in his work "that may be regarded as demonstrated: "Impulsive, social action is commenced by those social elements that are least self-controlled." . . .

"The Law of Restraint of impulsive social action is: Impulsive social action varies with the habit of attaining ends by indirect, or complex means." In other words, impulsive social action varies with the attainment of ends by rational means, free from impulsive, emotional excitement, characteristic of the reflex, automatic consciousness, or subconsciousness.

"The Law of extent and intensity of social action is: Impulsive social action tends to extend and to intensify in geometrical progression." This is my Law of Logarithmic relation of social mass and its energy.

I may add another important factor in Social Psychology, a factor revealed by my researches in the pathology of the human mind.

The disaggregation of social consciousness predisposes to the arousal of one of the most fundamental of impulses and instincts,—the impulse of self-preservation with its accompanying fear-instinct. The subconscious is specially affected by self and fear suggestions,

direct and indirect, which tend to awaken and stimulate the uncontrollable, slumbering impulse of self-preservation and fear which are ever ready to awaken and burst the bonds in which they are kept in the subconscious regions by the controlling, rational, personal consciousness. Once self-preservation and fear are aroused they magnify and intensify the pathogenic state of subconscious social activities.

"Intimidation" says Tarde "plays an immense part in society under the name of 'respect.' Every one will acknowledge this, and although the part is sometimes misinterpreted, it is never in the least exaggerated. Respect is neither unmixed fear nor unmixed love, nor is it merely the combination of the two, *it is a fear which is beloved* by him who entertains it." All taboos, covering the vast field of human life, religion, magic, family, marriage relationships, articles of diet, details of modes of living, rules of behavior, involving the minutiae of life of primitive societies, savage, barbarian and civilized, all the codes of law, religious, ceremonial, legal, political, all customs and rites and beliefs which control the human race in the course of its evolution, take their origin in self and fear. According to anthropological research all human institutions with all their taboos are based on fears of perils, often of an extremely superstitious nature, perils of soul and body, fears of impending evil of the supernatural before which gregarious man quails in terror of his life. The impulse of self-preservation and the fear-instinct are at the basis of social organized life activities. The taboos, the laws, the rules of gentes, tribes, and nations, from the lowest to the highest, are upheld by a vague terror and sacred awe which society impresses on man by threats of ill-luck, fearful evil, and terrible punishments befalling sinners and transgressors of the tabooed, of the holy and the forbidden, charged with a mysterious, highly contagious, and virulently infective life-consuming energy. As the English anthropologist, Frazer, puts it: "Men are undoubtedly more influenced by what they fear than by what they love." The Bible lays special stress on the fear of God as the font of wisdom. The Biblical love is saturated with fear of the supernatural. Lack of obedience to commandments, in modern religions lack of faith, is threatened with fearful tortures and eternal damnation in hell. Throughout the course of human evolution, through the institutions of gentile savagery and barbarism to political class-civilization, social organization was taboo-intimidation based on self-preservation and fear. Organized society inspires its individual units with abject terror of the least trespass of custom, rule,

rite, and taboo. "Brute force" as the English anthropologist well puts it "lurks behind custom in the form of what Bagehot has called 'persecuting tendency.'" Society enmeshes the individual in a close and strongly woven network of taboos, customs, commandments, and traditions, all maintained by force and fear.

Fear of the outraged sense of the community inhibits even the very thought of breach of a taboo or violation of custom. The taboo is based on some subconscious fear of some unknown mystic force, or some vague apprehension of a spirit power avenging the awful transgression. The taboo is essentially the fear of the unseen, of the unknown. "A taboo is anything that one must not do lest ill-luck befall. And ill-luck is catching, like an infectious disease. Hence, if some one has committed an act that is not merely a crime, but a sin, it is every one's concern to wipe out that sin; which is usually done by wiping out the sinner. Mobbish feeling always inclines to violence." This fear of communal anger, manifested at the breaking of some taboo, and resting on social self-preservation and mystic fear of the unknown and the unseen, is at the basis of all social institutions. Self-preservation and fear are at the heart of gregarious man; the two interpenetrate every fibre of his subconscious being.

Plato with his deep insight into the nature of man and society finds fear of such vital importance that he makes *the knowledge of what to fear and what not to fear* as fundamental in the education of the citizen. Self preservation with its companion the fear instinct dwell in the subconscious depths of gregarious man, and once aroused from slumber and started on their mad career cannot be arrested, they both become uncontrollable, giving rise to social plagues, mental crazes, epidemics, and panics highly contagious and virulent in character. This was well brought out in the skillfully conducted campaigns by the various governments in appealing to the masses with their characteristic suggestible subconsciousness, stirring to the very depths the reflex consciousness of gregarious man by all sorts of direct and indirect suggestions of fear of attacks and patriotic reactions of self-defense against such attacks until the evil genii of self-preservation and fear became loose, resulting in a sweeping conflagration of a war of nations with all the horrors of diseases, mutilation, and extermination of millions of human lives; over seventeen and a half millions, according to latest accounts, having perished in this world-massacre of the human race.

Of all the mental epidemics that befall aggregate humanity and its subconscious activities the worst are the mob feelings of the mili-

taristic type. The subconscious activities are not rationalized and humanized, they are in fact more brutalized than ever, inasmuch as under the aegis of military law and under the tacit understanding that necessity knows no law, there is no pity and no mercy in war. The worst of crimes are committed for the benefit of the army and the militant nation. The individual in the army becomes used to holding human life in contempt, in fact, the greater the slaughter, the greater is his merit; and the more medals, ribbons, and honors of hero-worship are showered on him, the more he becomes, after a time, indifferent to all sorts of human suffering and loss of human life. We find this indifference in the warlike Assyrians who enjoyed the impaling and flaying alive of their prisoners, and in the case of the military Spartans in the treatment of their unfortunate Helots, more specially in the imperial warlike world-conquerors, the Romans, in their love of the brutalities of gladiatorial combats and the popular delight in the shedding of blood on the arena. Thus Lecky in describing Roman society, says: "The gladiatorial games form indeed one feature which to a modern mind is almost inconceivable in its atrocity. That not only men, but women, in an advanced period of civilization,—men and women who not only professed, but very frequently acted upon a high code of morals,—should have the carnage of men as their habitual amusement, that all this should have continued for centuries with scarcely a protest, is one of the most startling facts in moral history. It is, however, perfectly normal, while it opens fields of ethical inquiry of a very deep, though painful character." The great Roman phrase-monger and moralizer, Cicero, glorifies gladiatorial games. "When guilty men" proclaims Cicero "are compelled to fight, no better discipline against suffering and death can be presented to the eye." It is instructive for us to learn as well as to ponder on the fact that "the very men who looked down with delight, when the sand of the arena reddened with human blood, made the theatre ring with applause when Terence in his famous line '*Homo sum, Nihil humani mihi alienum puto*' proclaimed the brotherhood of man." If any protests against those edifying gladiatorial games and ancient forms of movie shows of the arena appeared at all, they came not from the intellectual and ideological classes, but from the despised Jews and from those pariahs of the ancient world, the unwarlike, peace-loving, humble, early Christians who lived by the apparently absurd rule of Christianity: 'Love your enemies, and return good for evil.' There is, however, one feeble protest on record, but it is not from imperial Rome,—it is

from the mother of human progress and humanistic civilization, from ancient Athens. "When an attempt was made to introduce the games into Athens, the philosopher Demonax appealed successfully to the better feelings of the people by exclaiming: 'You must first overthrow the altar of pity!'"

Of the many mental epidemics that occurred in the middle ages, the Crusades, on account of their duration, intensity, and extent, are of interest to the student of Social Psychology and Social Pathology.

The crusades agitated Europe for a couple of centuries with a loss of more than seven million men. Peter the Hermit and Pope Urban II were the heroes who first broke the ice, and directed the popular current to the conquest of the Holy Land. The fiery appeals of the emaciated, dwarfish hermit carried everything before them. The frenzy which had unsettled the mind of the hermit was by him communicated to his hearers who, sinking into a trance, fell easy victims to the fearful visions of a disordered mind.

Meantime Pope Urban II convoked two councils, one after another. At the second council that of Clermont, the pope addressed a multitude of thousands of people. His speech was at first listened to in solemn silence. Gradually, however, as the multitude became more and more subject to the action of the suggestion, and began to sink into the subconscious state of social trance as it is usual under such conditions, sobs broke out. "Listen to nothing" he exclaimed "but the groans of Jerusalem! . . . And remember that the Lord has said 'He that will not take up his cross and follow me is unworthy of me.' You are the soldiers of the cross; wear then on your breast or on your shoulders the blood-red sign of Him who died for the salvation of your soul!" The suggestion took effect, it was irresistible. Leaving the fields and towns, agricultural serfs and petty traders displayed intense eagerness to reach the Holy City. Marching in parades and processions with high floating banners, flags, and sacred images at the sound of drums and praying monks hysterical multitudes called for preparedness in the cause of the holiest of wars,—the war of Christ against the infidel. Nations sank in a state of social somnambulism, obsessed by hatred in the name of love, and by war in the name of peace.

The silly, crazed, maniacal subconscious, in spite of its impulsive and reflex character, often simulates the reflective self by using meaningless, pompous phrases of an idealistic nature. The chattering, irra-

tional brute of the subconscious clothes itself in the tattered garments of rationality and idealism. Few are clear-sighted enough to discern the cloven hoof from under the mantle of the active subconscious, freed from all control of the rational self. Those few who by some luck happen to escape the madness of social hypnotization are afraid to give expression to their thoughts, because they are terrorized by the inquisitorial intolerance of crazed mobs and frenzied nations. Everyone spies and is spied upon in turn; everyone denounces and is denounced in turn for disloyalty to the cause of "humanity" and treason to the sacred flag. The few are forced into silence and submission by threats of violence and torture. If anyone dares to say anything rational, or if he has the courage to set himself in opposition to the maddened current of popular opinion, he is mobbed by pious crowds and is persecuted by inquisitorial courts of justice. Such was the terrible state of the mediaeval crusade-mania. Such in fact is the state of every crusade-mania which seizes on the minds of nations in the long history of national mental epidemics. If any rational person during the crusade epidemic dared to speak a word of warning, the only answer of the hypnotized, entranced crusaders was the suggestion given by the pope: "He who will not follow Me is unworthy of Me." Such conscientious objectors, "sinners undeserving of Me," were usually wiped out by sword and fire.

If we ridicule the mediaeval crusade mania, let us compare it with what took place in our own times, in the first quarter of the twentieth century. At the outbreak of the war for the alleged defense of the Fatherland the excitement of militaristic mania in the central empires of Europe reached a formidable height. There were parades, processions, the carrying high of banners and flags, the preaching of hatred and singing of "Hass" and the patriotic national hymn—"Deutschland ueber Alles"; there were Leagues of Defense and Leagues of Security, and all sorts of societies for fighting the war to a finish and for winning the war. The plague did not spare scientists, philosophers, and theologians; such men as Wundt, Haeckel, and Harnack were affected alike with the lowliest chimney-sweeps and craziest asylum inmates,—all cursed and threatened perfidious England and the treacherous allies, all were obsessed by the fervor of national defense of the imperilled Fatherland. The patriotic crusade of the Fatherland-defense did not spare anyone; the young and the old, the learned and the ignorant, the conservatives and the radicals, the capitalists, the workmen, and the international socialists were all alike affected by



this terrible mental epidemic. If anyone happened by chance to escape the plague and give a word of warning he was promptly accused of disloyalty, interned, imprisoned, immured in a cell for years of torture. It seemed as if the insane asylums had opened wide their gates and let loose their populations to hold frenzied meetings, and parade the streets in processions of wild excitement with banner, flag, and drum for the salvation of the country. Thus a German medical eye-witness of all those militaristic orgies expressed himself in private: "The streets are now full of the unbalanced and the insane; this is their hour. . . . The war will afford a free arena for every instinct and every form of insanity."

Many of those parades and processions were at first staged and controlled by the ever present hands of the central government and the ruling classes. Then the highly virulent mental germs skillfully inoculated took a hold in the subconscious mind of European humanity; the disease developed rapidly, spread like wild fire, and raged unabated throughout the width and length of the central empires. This virulent epidemic soon spread to neighboring nations, and like its deadly associate, the influenza, reached the farthest corner of the habitable globe. In some nations there was a lull of 'neutrality,' the incubating period, followed by an ever rising temperature of popular excitement, breaking out in series of 'preparedness parades' occurring all over the country from imperial New York, the stock-yards of Chicago, the mines and vineyards of California to towns, villages, and hamlets. At first social hypnotization was staged by organizers, leaders, and hypnotizers in the form of parades and processions with banners and flags, to the sound of drums and orations, reverberated and magnified by the boom and thunder of the press. The hypnotization took effect, and the demon of the demons began to stir in the depths of the subconscious social self.

Repetition and impressive, persistent suggestion finally brought about a lodgement of the virus in almost every individual of the social aggregate. Neither the learned nor the ignorant could escape the pressure of social suggestion. The way they tumbled one after another or rather one over another as victims to the fatal influence should have been a study of the utmost interest to the student of Social Psychology. Lay, literary and scientific periodicals were full of war literature. Versifiers sang of "the blood-red glory cross of war" while soldiers and sailors made love not only in halls and on the streets, but also in all the best sellers and novelettes. All the posters, all the

pictures of every journal in the land were full of war, magazines teeming with photographs of soldiers and sailors and the valorous deeds of the heroes at the front. Who could resist the pressure of insistent war-suggestion repeated day after day and month after month? There was no let up on Sundays and holidays. The pulpit thundered war, congregations sang battle-hymns.

Then came the great "saving" mania. Everything and everybody had to be saved. Circulars were distributed about saving and the war. One went to sleep with war pictures and illustrated circulars of a militaristic character, and woke up with visions of war illustrations. Everything had to be saved. Save Belgium, save the country, save Democracy, save your food, from potato peelings to the garbage can. The suggestion was irresistible, and the weak human spirit yielded and fell into a deep social trance from which the awakening could not but be one of disillusion. Meanwhile, the war literature, experiences of all kinds of colonels and generals and correspondents grew to enormous proportions. The dust raised by all that waste product which the country could have easily 'saved' blinded the eye and choked the breath. Everybody, young and old, fell to greedily reading the latest book on the war. Everybody was full of war, from the leader in society to the waiter in the club, from the leader in the paper to the wrapper round the grocery man's soap-box. Why wonder that when the air was full of the germs that the war malady spread like wild fire?

The populace became obsessed with a fury of war insanity, with a craze of Victory-mania. Security leagues, unions, associations, clubs to promote and advance something or other of a patriotic character to help winning the war were formed all over the country. The enthusiasm of national excitement went far beyond the bounds desired by the government, such as the activities of The National Security League which denounced members of Congress for not being red-blooded Americans, or for not showing one hundred per cent. of Americanism, so that Congress in self-defense had to investigate and possibly suppress the activities of over zealous leagues. Leagues of all kinds of description grew up rapidly and luxuriantly like mushrooms after a rain. Everyone attempted to outshine his neighbor, every one had to outdo his friend in doing his bit to help win the war. Posts, poles, trees, walls, and windows were plastered and placarded with leaflets, bills, and signs for the defense of the nation and the glory of the country. Whoever happened to be sceptical, or not enthusiastic enough,

was accused of being 'pro-German' and a spy, with consequences natural to such accusations. Every one tried to out-bawl his neighbor with declarations of loyalty, often of a spurious character.

The trance became deepened, the subconscious emotions of fear, anger, and aggression became more and more intensified, fanned as they were by the hot breath of propaganda and the bellows of the press, until the mass of the nation fairly quivered with the fever heat of enthusiasm and maniacal excitement, an overwhelming mass excitement which no individual could withstand. "Make the world safe for Democracy," "He who does not stand behind Me is disloyal and unworthy of Me" were slogans impressed on the subconscious mind of the public with all the suggestive force of law, press, bema, rostrum, pulpit, and movie, all waving on high old glory, calling crusaders to the battlefield of Democracy in honor of "Courage, Cooties, and Heroes," and for the glory of "the blood-red cross of War." Secretary Lansing has well summed up the general mental state in his appeal: "Let us, as loyal citizens of the Republic, serve in this mighty crusade against Prussianism." For such a mental state can only be paralleled by the crusade mania of the Middle Ages, the crusade mania which cost Europe millions of men, killed and crippled, devastations of populations and countries, followed by the no less terrible epidemic of the Black Plague which ravaged Europe and Asia from end to end, with the destruction of half the human race.

The bestialization produced by war and militant patriotism came openly to the front with all the horrors of savagery, rapine, deportation, atrocities, and the inhuman slaughter of millions of human beings for the glory of the Fatherland and Kultur and for "the making of the world fit for Democracy." Groups of scientists vied with each other in their supply of infernal machines and chemical poisons for the wholesale slaughter of mankind. Poisons and poison-gases, more deadly than ever employed by savage man, poisons which even savages and barbarians scorned to use, were utilized triumphantly and jubilantly by Kultur and culture in their mad strife for supremacy. Man could not have fallen to a lower level of vice and depravity. The Aristotelian dictum was well justified in this strife of nations, in this ignoble world war: "A vicious man can do ten thousand times as much harm as a beast." The chivalrous motto of Alexander of Macedon "οὐ κλέπτω τὴν νίκην," was scorned by the generals of civilized nations. Atrocities of the most vicious kind were justified by the watchwords: "This is war!" "Might is Right." "Necessity knows

no law." In this world-war nations fell to the lowest level of savagery. The frenzied, suggestible, gregarious, subconscious self, freed from all rational restraints, celebrated its delirious orgies, its coryban-tic bacchánalia, held its mad *salto mortale* over the grave of crucified humanity.

Our social status is a reversion to savagery of the most degenerate type, an atavistic lapse towards the paleolithic and eolithic man, only more brutal, because of the greater power for evil possessed by modern man. What Hun or Vandal ever dreamt of such colossal destruction! Over three hundred billions wasted by war and depredation, about seventeen to twenty million men lost by slaughter and disease! The fame of God's scourges, Attila, Jenghiz Khan, Batu, and Tamerlane pales and fades before the glories of modern warfare. In a few years Kultur and culture have caused more ruin to humanity than all the invasions of the yellow peril in the history of mankind.

Some future historian in describing and estimating our times will place us below the moral level of the Bushmen, the Hottentots, the Todas, and the Australian savages. He may say: "Towards the end of the nineteenth and at the beginning of the twentieth century there took place a vast accumulation of wealth, due to a rapid development of applied science and practical arts. Instead, however, of improving their condition, European nations deteriorated intellectually and morally.

"Liberal education gave way to technical training. Science served on greed. Education became mechanical and military in character. The thinker gave way to the reporter, the scientist to the mechanic, the artist to the artisan, the genius to the Philistine. Industrial and commercial interests inspired by patriotism and chauvinism became the standard of nations. An insane frenzy of militarism obsessed the minds of men.

"The state enslaved the individual. Blind obedience became a virtue. Drill and discipline trained people into automatism of the subconscious with its abnormal suggestibility and extreme sensitivity to direct and indirect suggestions, intensified by brilliant parades, hypnotizing oratory, and by all the artifices of a militant chauvinistic press. Nations were thrown into a social trance, the subconscious came to the surface, yielded to the noxious suggestions, wriggled in hysterical convulsions of nationalism, became obsessed with the fury of homicidal mania, and plunged into the abyss of the world war with all its horrors and atrocities. Nations boasting of refinement and

culture, of great achievements in philosophy and science and of general world 'Kultur' and culture broke treaties, attacked, destroyed, deported, and enslaved whole populations. Women and babes were drowned like rats in the middle of the ocean by sneaking submarines. Zeppelins and aeroplanes showered explosive missiles on defenceless people, on civilian populations. Nations gloried in such brutal acts. Every fiendish deed was greeted with an ever rising wave of patriotic enthusiasm. For such cowardly, inhuman, and diabolical acts, the craven miscreants were decorated and honored as heroes by their alleged superiors. Man could not have fallen to any lower level of vice and depravity.

"The very elements of nature were let loose for the ruin of nations. Man gloried in his fiendish, military, inventive power of depredation and destruction. Science supplied virus, venom, toxins, poison, gas, rifles, cannons, tanks, and long range guns. Hell was let loose on earth. Professors of philosophy and science carrying high the patriotic banner of Kultur and culture gloried in the system of compulsory, universal, military service, first made in Germany; they exulted in the degrading, vicious process of training by which the individual is hypnotized into submission to a brutal organization of military junkers, hallowed by the name of state and Fatherland. It was the darkest period in the history of mankind. Man was crazed with the lust of blood, frenzied with rapine and murder."

Such are the terrible consequences when in fear of attack or invasion the subconscious becomes awakened to its irrational self-defence by the impulse of self-preservation and the fear instinct. The prestige of the gregarious aggregate, the overwhelming awe and terror of the herd, mob, community, the loss of individuality in the mob and the crowd, along with the conditions favorable to a dissociation of the upper, reflective self from the suggestible, automatic, reflex subconsciousness go to form the main sources of all mental epidemics, scourges, plagues, panics, frenzies, and manias, political, religious, and military. With the increase in mass of the human aggregate the mob-energy grows like the momentum of an avalanche in its downward course. Witness the overwhelming migratory obsession of swarming multitudes of hordes of barbarians, an obsession akin to the uncontrollable, migratory instinct of birds, or of buffaloes, an obsession which has seized periodically on barbaric tribes, such as the migrations of Semites, Aryans in the early dawn of history, the *Lust-Wanderung* of Celts, Goths, Normans, and Germans, Huns, Mongols,

Tartars in the early ages of our era; the flood of Arabs, obsessed with a fervor of military, religious mania; the Crusades of mediaeval European humanity, rolling waves after waves of crusaders in a fury of religious, delusional excitement, forcing their way towards the entrancing object, the grave of the Savior in Jerusalem; the bloody religious wars of the Reformation; the political revolutions in England and France with the terrible excesses of mob-rule; the mob spirit running riot in economical crisis, financial bubbles, industrial panics, religious revivals; Napoleonic wars; the recent exaltant, social mania of empire-building and world-dominion, infected by the most virulent pestilential germs of triumphant militaristic nationalism which first seized on the imperial aggregates of Central Germanic tribes, and spread like a virulent miasma to other nations, wafting its poisonous emanations across land and oceans, culminating in the worst world-epidemic,—the so called world-war.

The central and centralized, imperial governments, guided by the big interests of the country, induced in their unfortunate subjects this last pestilential epidemic of military mania by means of a persistent course of direct and indirect suggestion in which the conditions of normal and abnormal suggestibility were specially emphasized, laying bare the social subconscious, stimulating in it the fear of invasion and attack by neighboring nations, stirring up the impulse of self-preservation, rousing the entranced, hypnotized mind of the populace to a frenzy of self-defense, while the junkers, the officers, the soldiers, the professors, the journalists of the middle-classes were entranced with beatific visions of world-dominion. Nothing stirs so much to the very depths of its soul the poor, naked, irrational subconscious as self and fear. Nothing is so suggestive, so appealing to the social subconscious as fear and self which alone have the power to set society into intense excitement of maniacal fury.

With the growth of social institutions there is an ever increasing tendency towards formation of rigid rules and regulations for almost every step, for every act in all walks of life. Man's behavior is prescribed for every occasion of life. He is commanded by direct and indirect suggestion what to say and how to say it, what to do and how to do it, what to wear and how to dress, what to eat and drink and what manners to have at the table and in company, he is prescribed what to believe and what to think in fear of social condemnation and eternal damnation. Man is brow-beaten, leashed, muzzled, masked, and lashed by boards and councils, by leagues and societies, by church

and state. Man is driven by orders and commands, rules and laws, customs and fashions. Man is crushed under the burden of statutes and terrorized by fear of taboos.

Aristotle takes it for granted that it is absurd and ludicrous to force a person to cure himself. He had no suspicion that many centuries later man will be forced into treatment by benevolent organizations, charity boards, philanthropic societies, hygienic and eugenic societies, boards of health, and municipal councils. In fear of disease and in the interest of his health man will be muzzled and masked like a vicious dog, and that without any murmur of complaint. Breathing freely will become a social offense, punished by fine and by jail in the communities of the free West. With a scanty supply of laws in Hellenic commonwealths or city states what an immense vista for an Aristotle, of that grand, complex, efficient machinery of law, turning out yearly thousands of laws and taboos for the paternalistic control and alleged welfare of the citizen! What a joy to watch our bureaucratic governments piling law on law fit for the waste basket and the scrap heap! Edicts, ordinances, regulations are issued by the thousands by states, cities, towns, boroughs, organizations, societies, associations, and leagues for all imaginary human ills. Society staggers under the burden of laws and taboos. Individuality is stifled by the endless, massive excretions of its lawgivers. Our lawgivers take special pride in the ever active manufacture of new bills and laws. Recently even the legislators begin to object to the labor involved in the work on the ever growing mass of bills, introduced into the legislature of one state alone. Thus a senator of a western state complained that in one year alone over seventeen hundred bills had to pass through the mill of his legislature. Multiply that figure by the number of states, add the municipal edicts, and the numerous laws turned out by the federal government, and one can form some faint idea of the vast burden laid on the shoulders of the individual citizen. It were well if the legislators were specially instructed by their constituencies that instead of piling bills upon bills and laws upon laws, like Pelion on Ossa, they should repeal as many as they can. At the present stage of "law-mania" the rational legislator would be far more useful if he made up his mind to devote his time and energy to the clearing of the Augean stables of law products. The overproduction of laws is one of the great evils of modern civilization.

In one of the ancient Greek republics he who wished to introduce a new law had to appear before the popular assembly with a

rope around his neck, probably as an emblem of the hangman and the criminal. We have hardly made an improvement by shifting the rope to the neck of the helpless citizen. We may possibly be forced to come round to the ancient Greek practice by putting once more the rope round the neck of the legislator,—and tighten it too. Traditions, laws, taboos, statutes, commandments, rules, regulations, ordinances, manners, and fashions, all enacted by an inordinate philanthropic zeal for the good and improvement of society and race, press heavily on individuality and originality, forcing them down into the general mire of mediocrity. The home, the school, the church, the club, business, profession, trade, and union, all insist on strict, correct conformity to standard; all demand authoritatively implicit obedience and submission to rule and regulation.

The individual is so effectively trained by the pressure of taboo, based on self and fear, that he comes to love the yoke that weighs him down to earth. Chained to his bench, like a criminal galley slave, he comes to love his gyves and manacles. The iron collar put around his neck becomes a mark of respectability, an ornament of civilization. Tarde finds that society is based on respect, (*respectability* I should say), a sort of an alloy of fear and love, fear that is loved. A respectable citizen is he who is fond of his bonds, stocks, and shekels, and comes to love his bonds, stocks and shackles of fears and taboos. In fact, he attacks and fights those who wish to free him from his social, religious, and political fetters. Some criticize justly the militaristic regime with its heavy weight of obedience and strict discipline, pressing on the individual. What is the burden of militarism compared with the endless screw of the socio-static press ceaselessly and pitilessly forcing individuality into the narrow, crooked moulds of social mediocrity and respectable commonplace?

In "*The Psychology of Suggestion*" I pointed out an important law in Social Psychology, namely, that *greatness of individuality is inversely proportional to the mass of the social aggregate*. Great genius appeared not in the empire of Assyria, Babylonia, or Persia, but in the small city-states of Greece and Judea. It is not immense modern China that gives great men, but the small states of Chinese feudalism. This Law of Mass *versus* Individuality falls in line with my work on the subconscious and its conditions of dissociation: Limitation of Voluntary Activity, Monotony, and other conditions, requisite for the weakening and final disaggregation of the primary, upper self from the lower, subconscious self leave the latter bereft of control and critical sense.



This law may be modified under conditions in which the individual is given freedom and more scope than in societies hitherto known to us. In this respect we may agree with the great French psychologist, Ribot, who in reviewing my work thinks that the law admits of exceptions. Professor Ross, however, seems to adopt the law without any qualification: "It is perhaps the dwarfing pressure of numbers" he writes "that explains why vast populous societies seem to produce small individualities, whereas little societies permit great men to arise. Compare great homogeneous aggregations, such as Egypt, China, Persia, Babylonia, India, with the diminutive communities of Judea, the Greek city-states, the Italian cities of the Middle Ages, the free towns of mediaeval Germany, the Netherlands, Scotland, and Switzerland."

However the case may be with societies under widely different conditions of development the law of mass and individuality holds true of the social facts known to us. The law is of far greater importance than the psychologist and sociologist are inclined to admit. It is certainly important to remember this law when dealing with social progress. The individual is getting dwarfed and stunted in proportion as the social aggregate is getting larger and more organized. The larger the empire the more dwindles the mind of the citizen. This is especially true of empires formed by conquest in which the individual is reduced by military discipline to the rôle of an automaton, where the automatic subconscious is alone cultivated and is in direct relation with the external world, with the commands, orders, suggestions given to him by his superiors. Such empires soon crumble, sometimes in the life time of a single generation. The empire of Alexander Macedon, the empire of Charlemagne, the empires of Djenghis Khan and Tamerlane; in modern times the empire of Napoleon, the Russian and German empires are good illustrations.

The insecurity, the instability of militaristic empires is brought out strongly in aggregates held by force for a few generations: the catastrophe of the empire. The empire falls at one blow, and is gone forever. The Assyrian, the Persian, the Carthaginian in ancient times, the Austrian, the German, the Russian empire in our own times are cases in point. The empires go to pieces, they crumble into dust. From a superficial standpoint it may be said that an empire upheld by the sword perishes by the sword. This, however, is not the full truth. A deeper insight discloses the fact that the spirit of the empire-building citizen has been dead long before the final collapse. In fact it is

this death of individuality that is the real cause of the fall of the empire.

The fall of the empire is sometimes so sudden and so complete, and the spirit of individuality before its departure is so small and dwarfed, that no spirit is left to transmit the history of the imperial achievements. When a couple of centuries after the fall of the mighty Assyrian empire Xenophon passed the ruins of the once Nineveh the great, the capital of Assyria, the terror of nations, he was unable even to find out its name. Assyria was wiped out from the memory of man as if it had never existed. If it were not for Greek accounts, what would have been left of the great Persian empire, but a few ruins and inscriptions on the rock of Behistan? If it were not for modern excavations the very name of Assyria would have been like a dream of the past, long gone and forgotten. What would have been left of the Carthaginian empire, if not for the Greek and Roman historians? Those empires passed away at one single blow, and with the sudden collapse vanished all the glory of imperial power. But long before that fall the real glory had departed,—the glory of the individual. Empires may often look grand and magnificent, but they are built with poor material,—with small men and petty minds. Military aggregates or societies, held together by the sword, are doomed to dissolution at the moment of their birth. The destruction is not due so much to luxury and effeminacy, as is usually assumed, but to the dwarfing and suppression of the spirit of the free, living individuality which alone constitutes the active nucleus of social life.

With the growth of the social aggregate, social structure and functions become varied, differentiated, and rigid; social pressure increases, while individuality and originality are ever on the decrease, sinking to a uniform level of dead mediocrity and commonplace. There is limitation of the field of consciousness, limitation of voluntary activity, monotony, routine, and inhibitions, all growing with the increase of mass, structure, and social pressure on individual units. With the progressive intensification of these conditions the personal, critical consciousness gets more and more dissociated from the impersonal, automatic, reflex subconscious, and becomes subject to all sorts of absurd suggestions. If now some brilliant object fixes the involuntary attention of the subconscious mind of the social aggregate, the mental energy of the constituent units, becoming polarized, turning in one direction, develops a momentum, uncontrollable and overwhelming in its disastrous effects,—the subconscious self becomes the

luckless hysterical actor in all the vulgar farces and horrible tragedies of historical life.

Great empires, becoming gradually bureaucratized, institutionalized, differentiated, and ossified, carry within them the germs of decay and death. The growth of nations has, until the present time, been associated with a predominance of rigid structure over living function. When such lines and forms of organic development prevail, the individual, as the cell of the body, becomes soon senescent, drifting inevitably into age, decay, and death. The great biologist and embryologist, Professor Minot, describes this downward course of organic evolution, as the Law of Genetic Restriction: "The development runs in one direction, and ends in the production of structure, which, if it is pursued to its legitimate terminus, results in degeneration and death." Societies, developing on lines of organic growth, follow the Law of Genetic Restriction. The individual unit is more and more restricted to the narrow lines of growth of differentiation and specialization in which the individual is sacrificed to society and the state, and generally to the progressive development of the social organism, as the phrase runs. Such societies, from the very nature of the course taken by their evolution, tend towards decay, death, and final dissolution. Just as the process of cytomorphosis, or cell development, in the evolution of the organism leads to an increase of cytoplasm with formation of rigid connective tissue and fibre, with a corresponding decrease of nucleoplasm, the ever living font of life and youth, the process ending in dissolution of both the cell and the organism, so the process undergone by the individual in social organic evolution by a gradual reduction of the living personality and predominance of the subconscious with its rigid Byzantine institutionalism and formalism results in destruction of individuality, corruption, and dissolution of society.

With the increase of social pressure on the individual, with the ever rising power of restriction of freedom of thought and expression, and loss of liberty of manifestation of originality and initiative due to an ever greater amount of legislation and regulation of the minutiae of individual life, true social progress diminishes, comes to a standstill, ending in decline, decay, and ruin. Society is doomed to an ignominious death as soon as the connective tissue of institutions and the ossified material of officialdom with its rank growth of unyielding red tape and formalism begin to spread, choking, and strangling the free, personal life of the individual. The ancient Assyrian, Babylon-

ian, Egyptian, Roman, Byzantine, Arabian, Chinese empires, and in modern times the sudden collapse of the French, Russian, German, and Austrian empires warn us, by example, of what happens to nations, in spite of all their external splendor and apparent manifestations of greatness, when the private individual becomes restricted in thought and act by narrow, mean specialization, mean formalism, monotony of lines of action due to a legalized mesh of fibrinous tissue in a hypertrophied, cartilagenous, ossified structure of organized, and classified, governmental officialdom. History is strewn with the ruins of empires and with the remains of once living social organisms, because in the eagerness to build massive, rigid, and stable structures, the individual units became so bound and cemented by official tissue that paralysis of personal activities ensued. The whole social structure became decayed, and was finally destroyed by less organized, but more youthful societies in which the individual units were still vital, still having free scope for the manifestation of their energies. Brilliant as were those empires, magnificent as those social structures were to the external observer, they were rotten with corruption and decay, and were doomed to perish at the hands of the less advanced, more backward, but more vigorous tribes who were still alive with the living, nuclear energies of the individual.

In his description of the degenerate Byzantine Greeks Ribot tells us that their geniuses were mediocrities and their great men commonplace personalities. It was the cultivation of independent thought and the freedom of individuality that awakened the Greek mind to its achievements in art, science, and philosophy; it was the deadening Byzantine bureaucracy with its cut and dried theological discipline that dried up the sources of Greek genius. Society is on its downward course when it is building up a Byzantine empire with large institutions, immense organizations, and big corporations, but with small minds and dwarfed individualities. It is a sure symptom of social degeneration when administration is valued above individuality and official ceremonialism above originality. When the free soul of the individual is gone, the social organism gives up the ghost, and at best remains as an embalmed corpse, a warning to men in their craving for imperialism and their efforts at empire-building at the expense of the living, thinking individual. Imperial pomp is bought with the life-blood of man. Vain is imperial glory; for it is the symptom of disease and death of the social organism, grown fat with the lives of men. Society never appears so brilliant as when the end is nigh. It is like the dead lull

before the coming storm. When the storm comes the imperial edifice collapses in a chaos of ruins.

The best and most precious treasure of humanity is the free, independent personal life of the individual. More than twenty-three centuries ago Aristotle, one of the greatest thinkers of humanity, made some important generalizations on the nature of man and society, generalizations the full significance of which have not been fully appreciated. His work was based on extensive studies of the great variety of Hellenic societies and their diversity of constitutions. It may be appropriate to quote here some of his statements:

"That form of social constitution is best in which every man is best, whoever he may be, and can act for the best, and live happily. Happiness is virtuous activity. The active life of thought (as we put it, the active life of the upper, critical consciousness) is the best for man and the citizen. Happiness is activity, and the actions of the wise and the just (not the present business ideal of specialization, vocational, technical, professional or business efficiency of the greatest amount of marketable articles and luxuries) are the realization of what is good and noble. Not that a life of action must necessarily have a relation to other men (extolled at present, such as charitable, philanthropic, political, commercial, industrial, military, social) as some persons think, but much more the thoughts and contemplation which are free, independent, and complete in themselves. To man the life according to intellect is pleasant and best,—intellect constituting the essential nature of man." In other words, under a good constitution the upper, critical, rational, controlling consciousness should be cultivated both for the happiness of the individual and the general welfare of the community. "Happiness" Aristotle tells us "is self-rule, self-government." Man should not be ruled, but self-ruled: *ἡ εὐδαιμονία τῶν αὐτάρχων ἐστίν*. "Man should not be brought up for business or for work as an end in itself, but for leisure. . . . For it is specially disgraceful to have such a poor education as to manifest excellent qualities in times of work and stress, but in the enjoyment of leisure to be no better than a slave. For it is not in the nature of a free man (a cultured man as we would put at present) to be always seeking after the useful. Education should be with a view to the enjoyment of leisure. I must repeat once and again the first principle of all action is leisure. Both are required, but leisure is better than occupation. Society should take care of the education of the individual on right principles. In

most societies, however, good education on right principles is neglected, the people do as the Cyclops:

Each rules his race, his neighbor not his care  
Heedless of others, to his own severe.

Society is not a community of living beings only (for the sake of making a living as we would say, for the sake of work and trade), society is a community of equals, aiming at the best life possible for each individual citizen. . . . Now in man reason is the end after which nature strives, so that the education of the citizen (in a good community under a good constitution) should be with a view to that end, namely, the cultivation of the mind, more especially of reason."

Thus Psychology, Sociology, and History go to confirm the principle that in a well ordered and progressive community the end, the telos, is the culture of the individual, a culture based on the cultivation of the rational mind, or the cultivation of the upper, controlling, critical, personal consciousness of the individual citizen; the welfare of the community being not imperial grandeur of war and trade, empire-building of the military Macedonian type, but entirely and solely the development of man and the happiness of each individual citizen. The true aim of progress is not a beautifully organized bureaucracy with well organized departments for all walks of life in some great capital, adorned by pomp and display, or by ostentation of wealth and luxuries, but the simple, happy life of a highly cultured citizen. Protagoras' dictum: πάντων μέτρον ἄνθρωπος Aristotle modifies into: πάντων μέτρον ἄνθρωπος ἀγαθός. It is not *man*, as Protagoras claims, but the *good man* who is the measure of everything. It is not the citizen as a taxpayer, or voter, or office-holder, but the cultivated, free individual who is the true aim of all social progress.

This type of society, described by Aristotle as the result of his profound studies of various forms of social life, this type of society after which humanity strives in all its social metamorphoses, discarding one form after another as crude and inadequate for the purpose of a good social life, this type has for its sole object *not the structure of society*, the welfare of great institutions and the building of vast empires, *but solely the highest development of the free, cultivated individual*. Such a type of society the sole object of which is the happiness and cultivation of Man may be characterized as *functional*, or *humanistic*, based on the principle that in the universe there is noth-

ing greater than Man, and in Man there is nothing greater than Mind, or Reason. Societies whose object is the organization of a strong, centralized structure, the State, with its empire-building tendencies at the expense of life and liberty of the individual components may, from their nature, be characterized as *organic, or structural*.

In societies of the structural organic type centralization and organization with hypertrophy of structure are above rationalization and individualization with an ever greater tendency to cleavage of the conscious self from the subconscious self. Roughly classified, civilized, structural, organic societies may be theocratic, aristocratic, timocratic, and democratic. In theocratic societies, the priests representing the conscious activity, usurp the government, such as in Egypt and India. In aristocratic societies the nobility of birth and wealth, representing the intelligence of the people, assume the rôle of social control, while the rest of the population are kept in bondage and ignorance. Such conditions are found in many Greek states, in the Roman state, and in the societies of the Middle Ages, as well as in the states of modern Europe before the revolutions, in England, Germany, France, Russia, and Austria-Hungary. In timocratic societies the rich, or propertied classes represent the conscious control, relegating the other classes to the regions of the passive subconscious. In democratic societies of modern times the power is in the hands of the people, really dominated by the middle classes, business men, professionals, labor aristocracy and their leaders who possess control of the masses which form the subconscious strata of social life activities. Thus throughout the forms and history of structural, organic societies there is present a cleavage of the conscious from the subconscious,—the conscious control of classes as against the subconscious activities of the masses.

Classes *versus* Masses may be characterized as the main cleavage of organic societies. That is why the whole history of humanity which, until our present times presents the evolution of societies, associations, and generally of social aggregates, based on structural organic lines, is full of conflicts of classes and masses. History is full of struggles of the powers of the conscious classes with the subconscious forces of the masses. This massive subconsciousness, predominating in the type of organic societies, gives to the society as a whole the psychological tone of the subconsciousness, the character of which is suggestibility, normal and abnormal, subject to the nature, conditions, and laws of subconscious trance states. In other

words the *plane of cleavage in structural organic societies is along the lines of the conscious and the subconscious with consequent dissociation of the two*. Hence, the ever present danger of predominance of abnormal suggestibility, and precipitation in a general state of social hypnosis. *Social suggestibility and social somnambulism form the main traits of structural, organic societies.*

From this standpoint we may well understand why Tarde and many other sociologists lay so much stress on social imitation and even somnambulism as the very nature of society; for imitation is but another term for what may be more fundamentally described as suggestibility.

As a matter of fact when the great sociologist, Tarde, comes to examine more closely the basis of social imitation, he falls back on social hypnotization as the nature of social life. This social hypnotization, as we have found, depends on the stage of the social dissociation of the upper, controlling self from the lower, suggestible, subconscious self, or mass-subconsciousness. "The social, like the hypnotic state" writes Tarde "is only a form of dream (Tarde should rather say *trance-state*), a dream of command and a dream of action. Both the somnambulist and the social man are possessed by the illusion that their ideas, all of which have been suggested to them, are spontaneous. . . . Because this magnetization (or hypnotization) has become more general or mutual we err in flattering ourselves that we have become less credulous and docile, less imitative than our ancestors. This is a fallacy, and we shall have to rid ourselves of it." Tarde comes to the conclusion that "*Society is imitation, and imitation is a kind of somnambulism.*" There is a good deal of truth in Tarde's view of social life. What Tarde does not realize is the fact that his generalization holds true only of organically constituted societies, but not of all societies, and it is certainly not true of humanistic communities. Tarde's sociological generalization is but part of the truth. The definition of society in terms of hypnotization or somnambulism holds true of societies in which social dissociation is present. In other words, in structural, organic societies there is a weakening, or lack of development, or inhibition of the upper, critical self from the lower suggestible self with the consequent manifestation of subconscious elements and predominance of subconscious activities. This condition, as we have pointed out, and which cannot be emphasized too much on account of its importance, holds good in most, if not all societies, known to us from history, societies in which the organ-



ic, institutional structure of centralization predominated over the freedom of individual activity and the critical independence of personality.

Where social life runs in moulds, hardened by civilization of specialization, crystallized in caste, class, group, league, and various other organizations of a highly complex structure, there the social aggregate tends to develop more and more connective tissue fibre of the inactive, supporting type. This gradually crowds out the living elements, smothers the individual units, paralyzes the activities of the upper self with its controlling, rational consciousness, leaving exposed the lower, automatic consciousness with its characteristic abnormal suggestibility and docility to the stimuli and suggestions, coming from the external environment, and results in a permanent state of trance hypnosis, subject to all forms of gregarious plagues and mental epidemics. For all organic societies are based on subconscious activities which are but feebly held in check by a weak-minded upper self. Such human aggregates run wild in fads, crazes, manias, epidemics, plagues, mobs, riots, wars, without in the least making any real progress or in the least improving their wretched social state. It is not the humanistic type of society, but the organic, subconscious type of society which is the suggestible victim and miserable subject of hypnotization.

The fate of organic aggregates is sealed from the very start of their career. Organic societies, if left to themselves, may become stationary, or static, as it is sometimes termed, stagnating for centuries, like Egypt, India, China, and Byzantium, until destroyed by the onset of a young, vigorous society in which the structural elements have not yet gone far in their development, the living individual elements having still retained their social vitality and independent upper, personal consciousness, so that the social self has not yet sunk into the decadent, massive, subconscious with its characteristic abnormal suggestibility, and its hypnotic trance state. This young aggressive aggregate, once it has taken the course of organic, social development is, in its turn doomed to a similar fate. The ancient Babylonian and Hittite empires were destroyed by the Assyrian, the Assyrian and Egyptian empires by the Persian, the vast Persian empire by the Macedonian. After undergoing a process of segmentation the Macedonian empire succumbed to the iron grip of the Roman imperial rule. The Roman empire in its turn underwent a process of segmentation, into the western and eastern portion. The western portion fell a prey to the Germanic barbarians, while the eastern, the Byzantine empire, remained for centuries in a state of ossification, until destroyed by the onslaught of the Turks.

In modern times we witnessed the fall of the Chinese empire at the hands of the Japanese, the great crash of the mighty Russian and structurally well organized German empire, along with Austro-Hungarian and Turkish empires, all falling together into heaps of ruins in the great hurricane of the world war.

As long as societies choose the course of organic growth, of differentiation and specialization, becoming more and more inflexible, unyielding, and rigid, developing an hypertrophy of social connective tissue-laws, regulations, ordinances, commands, commandments, rites, ceremonies, formalities, and all sorts of prohibitions and taboos, and becoming crystallized into leagues, associations, and organizations with their respective constitutions, rules, and by-rules, all tending to stifle and smother the individual consciousness, so long will society be doomed to a state of subconscious activity with a predisposition to social somnambulism, getting, in consequence, afflicted with various forms of social diseases, often malignant in character, subject to riots, mobs, mental epidemics, crazes, and war-maniacs, and if not reformed by some radical revolution into a humanistic social type, ending in decay and death. Complexity of social organization is accompanied by a corresponding diminution of vitality and ultimate loss of life of the social aggregate. As Professor Minot tersely puts it: "With complication of organization the cells lose something of their vitality, something of their possibilities of perpetuation; and as the organization of cells becomes higher and higher (that is more differentiated), this necessity for change (differentiation and organization) becomes more and more imperative. But it involves the end. Differentiation leads up to its inevitable conclusion,—to death." A social aggregate which has chosen the fatal path of organic evolution must succumb to the same law of organic development to which all organisms are subject, namely greater and greater organization, increase of structure, greater differentiation, decrease of critical, personal, consciousness, loss of individual liberty, increased activity of the subconscious forces, falling into a state of somnambulism which can only be *redeemed by revolution or by death*.

A chronological table will show the uninterrupted chain of European mental epidemics:

Pilgrimage epidemic .....	1000 to 1095
Crusade epidemic, Eastern and Western	
Crusades .....	1095 to 1270

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Children's Crusade .....	1095 to 1270
Flagellant epidemic .....	1260 to 1348
Black Death and Antisemitic mania .....	1348
Dancing mania—	
St. John's dance .....	1374
St. Vitus' dance .....	1418
Tarantism .....	1470
	To the end of the fifteenth century.
Demonophobia, or witchcraft mania .....	1488
	To the end of the seventeenth century.
War mania—	
The Hundred years' war .....	1338 to 1453
The Wars of the Roses .....	1455 to 1485
The Hundred Years of Religious Wars ..	
The Huguenot Wars .....	1562 to 1629
The Massacre of St. Bartholomew's Day	1573
The Thirty Years' War .....	1618 to 1648
The War of Austrian Succession .....	1740 to 1748
The Seven Years' War .....	1756 to 1763
The French Revolution and .....	1789 to 1815
The Napoleonic Wars .....	
The Imperialistic wars of modern times throughout the nineteenth century and ending with the catastrophe of the world war .....	1914 to 1919
Bringing about the fall of the Russian, Turkish, Austrian, and German em- pires.	
Speculative manias—	
Tulipomania .....	1634
The Mississippi Scheme .....	1717
The South Sea Bubble .....	1720
And business bubbles to our own time. The speculative mania running a career from the highest excitement of busi- ness-revival, ending in a crisis of busi- ness depression in a cycle of ten years.	

If society is to progress on a truly humanistic basis, without being subject to mental epidemics and virulent social diseases to which the subconscious falls an easy victim, the personal consciousness of every individual should be cultivated to the highest degree possible. Every phase of individuality and originality, no matter how eccentric, should

not only be tolerated, but jealously guarded and protected from all assaults and oppressions. All manifestations of individuality and personality, no matter how opposed to our notions and foreign to all our tastes, ideas, beliefs and feelings, should be carefully left to grow and develop without any inhibitions, prohibitions, and punishments, nor branded by social custom and law as "dangerous, seditious, and subversive of the welfare of the state," should not be oppressed and persecuted by organized society and scourged by the scorpions of law and order. We must revert to the Hellenic ideal of a good citizen in a good society as expressed by Thucydides in the person of the greatest of statesmen, Pericles, and clearly stated by the greatest of thinkers, Aristotle: "The full development of a free individuality in a community of equals, aiming at the best life of each individual citizen."

By its famous proclamation that "All men are equals, and are endowed with certain inalienable rights, that among these are life, liberty and the pursuit of happiness" the American Declaration of Independence has made a long step in the direction of the true progress of humanity. The framers of the American Constitution have without any qualifications, whether peace or war, declared the most fundamental elements, requisite for the development of a well-ordered, civilized society by proclaiming in the very first article of the amendments to the Constitution that: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press, or the right of the people peaceably to assemble, and to petition the government for a redress of grievances." This is a fundamental limitation of congressional powers.

We must say to the credit of the American Congress that never in its history has it attempted to transgress this important right claimed by the Constitution, namely the freedom of speech, liberty of press, and freedom of popular assembly for the redress of grievances. It is certainly to the credit of Congress that no matter under what circumstances, peace or war, it guards jealously over this important right of the individual, freedom of expression in word, in speech, in press, and in assembly. The heroes of the American Revolution fought and died in their struggle with English rule that Liberty should live in the American colonies, in the states of the Union. The price of liberty is eternal vigilance. Congress, in defending the fundamental rights of the people, is ever vigilant that this right of freedom of word, press, and assembly should not for a moment pass from the people

which they represent. Congress sees to it that the humblest person in the land should enjoy this right under all circumstances, war or peace. No post-master, no censor, no attorney-general is permitted for a moment even to meddle with the inalienable right of expressing one's opinion, whether by spoken or by written word, as to the course of public affairs. Congress watches closely over all agencies that no law should be passed and enforced which should in any way interfere with the freedom of the individual and the liberty of speech, press, and assembly which are at the basis of the free American institutions. Not a single paper, not a single pamphlet was ever excluded from the mails, not a single person was ever brought before the courts, nor was any person ever sentenced to jail, nor even fined for freely expressing his opinion, in press or in word, no matter how damning they may be or antagonistic to the laws of that centralized, legislating body. Well may Congress be congratulated for realizing its mission, not passing any oriental, monarchical espionage laws that might in the least rob the individual of his inalienable right to liberty of expression in speech, in print, or assembly. Congress is the guardian spirit of American liberty, seeing to it that not a single law is enacted that may possibly prevent any one giving his opinion freely in public. Congress is the guardian spirit of the country. Every person, however humble, and no matter what his opinion may be, is given full freedom of expression as demanded by the Constitution. For Congress, as the bearer of the spirit of the Constitution, fully realizes that no civilized society may for a moment relinquish this great right of freedom of individuality and liberty of thought and expression by word, by press, and by assembly without sinking into a state of barbarism. Whether we stand at Armageddon and battle for 'the Lord,' whether we fight for the ideal, or sit in the council of the great to make a world of empires fit for democracy, this liberty is like a sacred fire, jealously guarded, like a beacon shining on a hill for the humblest person in the land. For Congress in its anxiety to preserve the word and spirit of the Constitution fully realizes that freedom of individuality and liberty of expression in speech, press, assembly, being the basis of human progress, should be guarded and even specially cultivated before all else, by all well-ordered, progressive commonwealths.

No man is so low as to deserve oppression, no opinion is so mean as to merit suppression. As we look back to the history of the human race we almost invariably find that all fundamental changes of human

life may be traced in their origin to some one individual or group of men, often obscure and humble, whose opinions were regarded as anti-social and dangerous, on account of their extreme radicalism and deviation from the conventional traditions, customs, and beliefs. The Hebrew prophets who set justice above the Hebrew nation, and put righteousness above patriotism which was preached by the false prophets of that time, claiming loyalty to nationalism, were just the few men who dared to give expression to the small, still voice of human consciousness and conscience, and as such were the true bearers of human progress. These great harbingers of human justice were hunted and persecuted unto death by the false patriotic prophets who put loyalty to Israel and Judah above loyalty to humanity. The true country of the prophets was not *soil*, but *soul*. Their countrymen were the just and the righteous of the earth.

What man would have dared even in our modern times of free speech and free press, what man would have dared to proclaim the prophesy of Hosea: "Ye have plowed wickedness, ye have reaped iniquity; ye have eaten the fruit of lies: because thou didst trust in thy way, in the multitude of thy mighty men. Therefore shall a tumult arise among thy people, and all thy fortresses shall be spoiled. . . . As for Ephraim, their glory shall fly away like a bird. . . . Though they bring up their children, yet will I bereave them, that there shall not be a man left . . . Ephraim is smitten, their root is dried up, they shall bear no fruit. . . . My God will cast them away. . . . They shall be wanderers among nations." Such words are not only unpatriotic, but they are also "seditious." When the Assyrian threatened the national integrity of Judah, Isaiah carried to his nation the following message: "Woe unto them that decree unrighteous decrees, and that write grievances which they have prescribed; to turn aside the needy from judgment, and to take away the right from the poor of my people, that widows may be their prey, and that they may rob the fatherless! . . . O Assyrian, the rod of mine anger, and the staff in their hand is mine indignation. I will send him against an hypocritical nation, and against the people of my wrath will I give him a charge, to take the spoil, and to take the prey, and to tread them down like the mire of the street." . . . Is not it a clear case of "sedition?" Is it not "giving aid and comfort to the enemy?"

When again the shadow of the later Babylonian empire fell on the small kingdoms of Asia minor, and the Jewish state was in immi-

nent danger of destruction, Jeremiah had the courage of proclaiming the patriotic prophets false. The true message to his nation was total national collapse which he claimed they fully deserved: "Lo, I will bring a nation against you from afar, O house of Israel, it is a mighty nation. . . . And they shall eat up thine harvest, and thy bread, which thy sons, and thy daughters should eat; they shall eat up thy flocks; they shall eat up thy vines and thy fig trees; they shall impoverish thy fenced cities, wherein thou trustedst, with the sword. . . . And the carcasses of the people shall be meat for the fowls of heaven, and for the beasts of the earth." Even when the Chaldeans besieged the Jewish capital, Jeremiah declared to the king: "Thus saith the Lord; Behold I will turn back the weapons in your hands wherewith you fight against the Chaldeans which besiege you, and I will assemble them into the midst of this city. And I myself will fight against you. . . . And I will smite the inhabitants of this city, both man and beast; they shall die of a great pestilence." These are not patriotic speeches. From our standpoint they are not only full of sedition, but of the worst form of treason. Still it was Jeremiah who proved in the right, and the false prophets of nationalism and patriotism in the wrong. This is the soul of the prophet's burden: *Justice is above my nation, and righteousness above my people.*

The prophets were but few individuals among nations and tribes, vibrant with nationalism of the narrowest type, but it was just these few chosen spirits and not the multitude of false patriots who gave voice to the tendencies of true human progress. The prophets were seized by the authorities, sentenced, mobbed, tormented, and killed, but their spirit lived, while kingdoms succumbed, empires vanished, and nations perished. The acts and decrees of the great Assyrian, Egyptian, Babylonian, and Persian monarchs lie buried in the ruins and dust of their once magnificent palaces, but the living words of the few humble men, the prophets, ring loud and true across the gulf of ages. Insignificant as those men might have been in the courts of a Sargon, Tiglath-Pileser, Esarhaddon, Cyrus, and Darius, it was none-the-less those lowly men who stood for human progress, and transmitted to humanity the precious treasures of human ideals.

The Gospel of Christ and his apostles ran counter to all Jewish tradition as represented by the Pharisees and Sadducees. Christianity conflicted with the imperial patriotism of the Romans. Cruel persecutions followed. The great historian, Tacitus, regarded the Chris-

tians with horror as we do anarchists and Bolsheviks, and he branded them as "the enemies of the human race." The mild Pliny in his report to emperor Trajan considers the Christians as deserving of punishments from a purely civic principle of subduing the obstinate and the obdurate. A quotation from Pliny's correspondence is both interesting and instructive as a warning to our own times: "The method I have observed," Pliny, as Governor of the province of Bythinia, reports to emperor Trajan "towards those who have been brought before me as Christians is this: I asked them whether they were Christians; if they admitted it, I repeated the question twice, and threatened them with punishment. If they persisted, I ordered them at once to be punished. For I was persuaded, whatever the nature of their opinions might be, a contumacious and inflexible obstinacy certainly deserved correction. . . . According to your commands, I forbade the meetings of any (Christian) assemblies. . . . I judged it necessary to endeavor to obtain the real truth, by putting two female slaves to torture, who were said to officiate in their religious rites, but all I could discover was evidence of an absurd and extravagant superstition. I deemed it expedient to adjourn all further proceedings in order to consult you. For it appears to me a matter highly deserving your consideration, more especially as great numbers must be involved in the danger of these persecutions. . . . In fact, this contagious superstition is not confined to the cities only, but has spread its infection among neighboring villages and country. Nevertheless, it still seems possible to restrain its progress." Pliny's opinion was the mildest statement made by a Roman official on the character of the despised Christians.

As the Christians grew in numbers they were no longer regarded in the light of superstitious, misguided people, but as people who were dangerous to the foundations and pillars of society. The Christians were accused of being cannibalistic, ghoulis in their religious services; it was charged that at their secret meetings they drank the blood of children as a sacrament, that they consumed the flesh of human victims as a sacrosanct piaculum, that they were drunk with human blood, and generally rejoiced in offering theanthropic victims to Christ, a crucified, criminal Jew. The Christians were abandoned criminals and degenerates who hated mankind, who delighted in excess, in ruin and destruction of civilization. The Christians were accused of crimes more heinous and nefarious than those brought at present against anarchists, Bolsheviks, and I. W. W. Incendiary



crimes in large cities throughout the empire, conflagrations in Rome, robberies, incest, foul murders of men, women, and children for sacrificial purposes were charged against those inhuman Christians who consorted with slaves and with criminals of the most abject and depraved kind, belonging to the Spartacus group, full of sedition and treason, conspiring for the overthrow of the Roman government, and undermining the most sacred foundations of human life.

The writers of the day could not find words abusive enough to express the villainy and depravity of those Christian vipers who breathed poison and hatred for the human race, those Christian deniers of Gods and of all things divine, those cannibal atheists who delighted in the seduction of poor, ignorant, misguided slaves, those Christians who entertained the absurd superstitions of that degraded and debased, and abject race, the Jews, the Gypsies of the Roman world, those Christians who delighted in the desecration of all that is true, good, and beautiful, who enjoyed the profanation of all that is pure and holy to man. Christianity was a plague which threatened with infection the body-politic and with pollution the very sources of society, a fatal scourge that surely tended towards dissolution of all ties, sacred to family, society, and humanity. Christians were moral lepers. No punishment, no torture was adequate for such fiends in human shape. Such were the terrible charges brought against the Christians, accusations circulated among the populace by writers, by reliable witnesses, government agents, informers, professional spies and detectives, and by respectable citizens. The Christians were "the enemies of the human race," the sworn foes of all law and order, and as such, they were hunted by police, by the populace, they were mobbed, jailed, deported, impaled, crucified, thrown to wild beasts on the arena, or hanged as flaming torches in the public parks or in Caesar's gardens for the amusement of the people. Even the imperial, ethical philosopher, Marcus Aurelius, joined in the hunting down of "the superstitious" and dangerous Christians.

Pliny's assurance that the spread of Christianity could be stayed was not realized. Christianity could not be stayed by the force of edicts and persecution. Christ and his small band of disciples triumphed; lowly and ignorant as they appeared to the haughty Roman patricians, mean as the Christians appeared to the aristocratic Sadducees and the learned doctors of the law, because Christianity originated among the poor and the lowly, the slaves and day-laborers, carpenters and fishermen, still it was just these few individuals who really constituted the ad-

vance guard of true human progress. What Tacitus, Pliny, Marcus Aurelius with all their culture deemed "an absurd and extravagant superstition, a contagion and infection" turned out to be the beacon light of humanity. Those whom the great Romans regarded as "the enemies of the human race" we, who have the advantage of historical perspective, now glorify as saintly martyrs who have given their lives for the highest principles of humanity. The stone which the builders neglected hath become the corner stone.

No opinion should be disdained and scorned. No individuality should be suppressed and crushed. The manifestation of individuality and originality should in every well-ordered and progressive community not only be persecuted, but on the contrary it should be cherished, protected, and cultivated as the *fons et origo* of civilization and human progress.

If we wish social life not to become stationary and stagnant, we should give free scope to all individuality and originality, no matter how eccentric they may seem to us. We should allow free play to all opinions, doctrines, and expressions of human thought, no matter how absurd and contagious the superstitions may appear to us. New ideas, ideals, and beliefs should not be persecuted but should rather be left for discussion and criticism, because we should not assume that we are in possession of the whole truth, and that no further advance is possible. We may learn from other people who look at the world from a different angle, and thus may be able to see things in a different light which may either add to the truth which we already possess, or may even transform it by some new additional element or principle which at first may appear to us as bizarre and paradoxical.

Even such simple sciences as Geometry, Physics, and Astronomy were revolutionized by principles which appeared quite absurd and paradoxical to the learned profession. What was more absurd to an Egyptian Ahmes than the assumptions of surfaces without thickness, of lines without breadth, and of points without any dimensions whatever? The principle of inertia appeared in opposition to the commonsense of antiquity. Heavenly bodies must have the support of crystal spheres, the assumption that they revolve in space without any support seemed absurd. The assumption by Newton that the force of attraction is transmitted through space instantaneously and without any known medium appeared paradoxical even to such a mind as Leibnitz. It was not long ago when a well known professor in

Physics in one of the greatest universities thought that there was not any more original work to be accomplished in the domain of physical science. Then came the Roentgen X-ray and the radio-active forces which have revolutionized science. A physicist of high standing confessed to me that when rumors of the X-ray properties and of radio-active forces began to circulate in the papers as miracles of science, he sat down to write a series of scientific papers on the "extravagant superstitions" of the X-ray and radium. The existence of antipodes was a standing joke and an example of absurdity among the scientists of antiquity. When Mayers discovered the law of conservation of energy every scientific journal refused to publish his work, and the great discoverer died of a broken heart in a sanitarium. Ohm lost his position when he discovered his great law of electricity. Dr. Jenner lost his practice when he gave to the world his method of vaccination. These instances can be multiplied indefinitely. Men hate new ideas of a radical character and are terrified by radical innovations in practice, especially when the innovations are of a political, and more so when of a social, religious, or economic nature. It is told that a workman came to one of the Roman emperors, Trajan or Hadrian, with a newly discovered metal that looked just like silver. The emperor had the inventor arrested and had him beheaded, fearing that the new metal might undermine the silver currency of the empire. While we rarely deal out such rewards to inventors and discoverers, any new ideas of a radical or revolutionary character are still met with social ostracism and governmental persecution. This rooted tendency of disapprobation of new ideas and innovations as generally bad and harmful is well illustrated by the remark of a Chinese sage in Confucius' Analects: "Nang-kung Kwoh, who was consulting Confucius, observed respecting *I*, the skillful archer, and Ngau who could propel a boat on dry land, that neither of them died a natural death; while Yu and Tsih, who with their own hands had labored at husbandry, came to wield imperial sway." This Chinese remark clearly reveals the fear not only of innovations, but also the fear of all originality, talent, and genius. The unusual individual comes to an untimely end. And the time was when the unusual was shunned as a plague, and the unusual individual was actually put to death.

The value of freedom of opinion is by no means lessened even if the given opinion on examination turns out to be wholly false. For the true value of an opinion is not so much in its *truth* as in its *freedom*. In our search for truth we should be anxious for every ray of light that

might *possibly* elucidate the subject from a different angle. The failure of the opinion in actually finding such an angle does not matter, more important is the open-mindedness which the free thinking man should constantly maintain. We must have as many opinions as possible to select from, true or false, or only partly so, and use our critical selective sense. The keeping alive of this critical selective sense is of the highest moment in man's rational life activity. In the rational equipment of the human mind it is of the utmost consequence to keep the edge of the critical sense bright and keen. In the course of examination of some new opinion which may afterwards be rejected some new sidelights may appear which may give a deeper insight into the nature of the subject, whether it be of a theoretical or practical character; some new views and modes of thought, new methods may be suggested which in their turn may result in the evolvment of new principles and important laws.

In the general history of science and in the history of each individual investigation we find this freedom of thought and critical sense ceaselessly at work. Rarely, if ever, do we strike in science the truth at a flash. We usually pass through a series of hypotheses, theories, speculations, and experimentations, often false or defective. Ever new lines of thought are struck out and new ways of experimentation are undertaken only to be rejected again and again. They who have undertaken a series of experiments on any subject realize the amount of work requisite before even the preliminaries may be started well under way. There must go on a ceaseless selection, an active criticism which is merciless to itself, ever hostile to routine, ever awake to new points of view and better methods of work, ever welcoming a different, but truer and better way of handling and treating the facts, observations, and experiments, ever ready to modify and change the course of the work, now in one place, now in another, ever retracing the steps of the research now one way, now in another, until some satisfactory and unitary point of view is gained. And still with all that labor one must always be ready to abandon the whole line as false and start on a new track, ever revising his work, ever criticizing each step in advance, ever doubtful, looking at the work as if it might be on the false track, allowing for error, alive to new facts which may contradict the methods of observation and experimentation or the apparently established facts, rejecting hypothesis and theories which are attractive, or which have become endeared to the heart of the investigator, either because they are his

pet view, or because they fall in line with his previous works, or because in sheer desperation of finding a sure, true, definite path in the jungle of facts he decides to adhere to one course and follow up one trail which may be entirely misleading and end in a blind alley from which he must once more retrace his steps, and start all over again. Of all that the true investigator must be acutely conscious, if he wishes to track the truth. The truly indefatigable and earnest investigator must be keenly conscious of failures, shortcomings, both of method and result. He must look at his truth as if about to be false, and at falsehood as if about to be true. Everything is relative, and nothing is final. It is only by such an attitude of mind and such a mode of procedure that truth can be attained.

If ceaseless vigilance is the price of liberty, more so is it true that ceaseless criticism of ever new opinions and ever new views, however distasteful, bizarre, and paradoxical, is the price of truth. For we must keep in mind the fact that truth does not come as *deus ex machina*, or like Athena out of the head of Zeus, but must be found after persistent, laborious, painstaking searching of heart, mind, and fact. Truth is in the deep, as a Greek sage puts it. One must dive again and again often bringing up nothing but brilliant falsehoods before the homely truths are found.

It is by a devious course of long search and patient testing of apparent truths and falsehoods that the investigator may be assured that he has got a hold of the truth, and even then he must be constantly on the look-out never to relinquish a re-examination of it so as to gain an understanding of its actual relationships, of its limitations and relativity that the truth may not slip away after all by a dogmatic position and by the neglect of circumstances and unforeseen conditions which he may have omitted to take into consideration, or by not bringing it into line with work and discoveries in other directions. By over-generalizing he may lose much that is vital in the truth and thus lay more stress on the false than on the true. Recent ruthless criticism of all that is dogmatic in Mathematics, Logic, Physics, Biology, and other sciences have resulted in new points of view and in the opening of new horizons for investigations which have revolutionized the sciences themselves. This sense of ceaseless active criticism must be kept alive and keen, if science and truth are to keep on advancing. It is due to this critical sense turned on the fundamental principles and postulates of science that such phenomenal progress has been made recently in the domain of science and human thought. This critical sense must be kept fresh

and alive, if human thought and love of truth are not to fall into a state of hebetude and desuetude.

The manifestation of the apparently false opinion keeps thought awake; it constantly challenges us, making us review again and again our established truths, and contributes to an ever deeper realization of what has been gained by severe thought and hard labor. The freedom of the seemingly false opinion and our tolerance of it and our willingness to meet with it in the open help test the validity of truth while keeping alive the critical sense which is the main spring of all advancement of human thought and is the vital point, the very soul, of all human progress. In a certain sense it may be said that *it is the function of the false to keep the truth alive*. The suppression of the freedom of thought or the liberty of individual expression, whether in speech or in press, is the crushing of all true human progress. Thus science, Sociology, Social Psychology, all go to confirm the same central attitude towards the free manifestation of individuality in the life existence of a well-ordered, progressive commonwealth.

The great philosopher, logician, and economist, John Stuart Mill, known for his candor and moderation, entered a strong plea for the liberty of the individual. Mill's work '*On Liberty*' is so well known that I almost hesitate to quote from it, and still the work is of such importance that I cannot resist the temptation of making a few quotations from it, even if they be somewhat lengthy: "People" Mill writes "think genius a fine thing, if it enables a man to write an exciting poem, or paint a picture. But in its true sense, that of originality in thought and action, though no one says that it is not a thing to be admired, nearly all, at heart, think they can do very well without it. Unhappily this is too natural to be wondered at. Originality is the one thing which unoriginal minds cannot feel the use of. They cannot see what it is to do for them. How should they? If they could see what it would do for them, it would not be originality. The first service which originality has to render them is that of opening their eyes: which being once fully done, they would have a chance of being themselves original. Meanwhile, recollecting that nothing was ever yet done which someone was not the first to do, and that all things which exist are the fruits of originality let them be modest enough to believe that there is something still left for it to accomplish, and assure themselves that they are the more in need of originality, the less they are conscious of the want.

"In sober truth whatever homage may be professed, or even paid, to real or supposed mental superiority, the general tendency of things throughout the world is to render mediocrity the ascendent power among mankind. . . . At present individuals are lost in the crowd. . . . The thinking (of the masses) is done for them by men much like themselves, addressing them or speaking in their name, on the spur of the moment, through the newspapers. I am not complaining of all this. I do not assert that anything better is compatible, as a general rule, with the present low state of the human mind. But it does not hinder the government of mediocrity to be a mediocre government. . . . In this age of mass-action the mere example of non-conformity, the mere refusal to bend the knee to custom, is itself a service. Precisely because the tyranny of opinion is such as to make eccentricity a reproach, it is desirable, in order to break through that tyranny, that people should be eccentric. Eccentricity has always abounded where and when strength of character has abounded; and the amount of eccentricity in a society has generally been proportional to the amount of genius, mental vigor, and moral courage which it contained. That so few now dare to be eccentric, marks the chief danger of the time. . . . There is only too great a tendency in the best beliefs and practices to degenerate into the mechanical; and unless there were a succession of persons whose ever recurring originality prevents the grounds of those beliefs and practices from becoming merely traditional, such dead matter would not resist the smallest shock from anything really alive, and there would be no reason why civilization should not die out, as in the Byzantine empire.

"It is not by wearing down into uniformity all that is individual, but by cultivating it and calling it forth, within the limits imposed by the rights and interests of others, that human beings become a noble and beautiful object of contemplation; and as the works partake the character of those who do them, by the same process human life also becomes rich, diversified, and animating, furnishing more abundant aliment to high thoughts and elevating feelings, and strengthening the tie which binds every individual to the race infinitely better worth belonging to. In proportion to the development of this individuality, each person becomes more valuable to himself, and is therefore more capable of being valuable to others. There is a greater fulness of life about his own existence, and when there is more life in the units there is more in the mass which is composed of them.

"There is one characteristic of the present direction of public opinion, peculiarly calculated to make it intolerant of any marked demonstration of individuality. The general average of mankind are not only moderate in intellect, but also in inclinations; they have no tastes or wishes strong enough to incline them to do anything unusual, and they consequently do not understand those who have, and class all such as wild and intemperate whom they are accustomed to look down upon. . . . There is a moral and prudential spirit abroad for the exercise of which there is no more inviting field than the moral and the prudential improvement of our fellow-creatures. These tendencies of the times cause the public to be more disposed than in former times periods to prescribe general rules of conduct, and endeavor to make every one conform to the approved standard. Its ideal of character is to be without any marked character; to maim by compression, like a Chinese lady's foot, every part of human nature which stands out prominently, and tends to make the person markedly dissimilar in outline to commonplace humanity. Instead of great energies guided by vigorous reason, and strong feelings, strongly controlled by a conscientious will, its result is weak feelings and weak energies which therefore can be kept in outward conformity to rule without any strength either of will or of reason."

Thus we are brought once more to the same view from which we started that the essential factor in human progress is the cultivation of the upper controlling, critical, personal consciousness. "The only unfailing and permanent source of improvement" says Mill "is liberty, since by it there are as many possible, independent centres of improvement as there are individuals." . . .

In these times of human agony, when the individual is crucified for social glory and national power, when men are sacrificed by the millions and their labor by the billions for the grandeur of the nation, when the world is made safe for all sorts of 'cracies' by fire and sword, it may be well to give heed to the following reflections by Tocqueville and Tarde:

"In democratic societies" as Tocqueville remarks "majorities as well as 'capitals' have prestige. As citizens become more equal and more alike (as far as their subconscious is concerned, regarded from the standpoint of Social Psychology) the tendency of each to believe blindly in a given man or class, diminishes. The disposition to believe the masses increases, and public opinion guides the masses more and more. Since the majority becomes the real political power, the uni-



versally recognized superior, its prestige is submitted to for the same reason as that of a monarch or nobility was formerly bowed down to. Moreover, in times of equality (of the mediocre subconscious considered from the point of view of Social Psychology) men have no faith in one another, because of their mutual (subconscious, mediocre) likeness. This very resemblance, however, inspires them almost with an unlimited confidence in the judgment of the public. For it seems improbable to them that when all have the same amount of light, the truth should not be found on the side of the greatest number." "This appears logical" comments Tarde "and mathematical. If men are like units, then it is the greatest sum of these units which must be in the right. In reality this is an illusion, based on constant oversight of the rôle played by imitation. When an idea rises in triumph from the ballot-box, we should be less inclined to bow down before it, if we realized that nine hundred and ninety-nine thousandths of the votes that it polled were but echoes. Unanimities should be greatly distrusted. Nothing is a better indication of the impulse of imitation." In other words, with the increase of mental disaggregation in a crowd of (subconscious) mediocrities individuality and the critical self are at a minimum, the subconscious self is left unprotected, a target to the arrows of suggestion. Social suggestibility is at its maximum, and the body-politic is thrown into hysterical convulsions of mob-frenzies, into maniacal, nationalistic excitement with fixed paranoidal delusions of national grandeur, demoniacal obsessions of world-dominion, resulting in homicidal and suicidal world-wars.

What then is the remedy for all those human sufferings, virulent mental epidemics, and other severe social maladies that plague mankind in its aggregate capacity? Only one answer is given by science, by Biology, Sociology, and Social Psychology: *Fortify the resistance of the individual by freedom of individuality and by the full development of personality. Immunize the individual against social, mental plagues by the full development of his rational reflective self, controlling the suggestible, automatic subconscious with its reflex consciousness.* Put no barriers to man's self expression, lay no chains on man, put no taboos on the human spirit. Do not, like the savage, run man's mind and skull into ugly shapes and distorted moulds of social traditions. Liberate man's spirit from the dark, narrow, and oppressive, social dungeon. Full freedom of individuality and cultivation of the critical rational self constitute the essential conditions of a healthy social consciousness. The full development of a synthetic unity of the conscious

in control of the subconscious in a pure atmosphere of liberty is sure immunity against all mental plagues, and is at the same time the source and aim of all true human progress.

Here we may pause for the present. As far as our present purpose is concerned Social Psychology needs not take us any further. Perhaps, the words of Professor Minot's may be appropriated here where we have laid so much stress on the Logos, on Thought, on Reason, as being the savior of humanity: "The time, I hope, will come" says Professor Minot "when it will be generally understood that the investigators and thinkers of the world are those upon whom the world depends. I should like, indeed, to live to a time when it will be universally recognized that the military man and the government-maker are types which have survived from a previous condition of civilization, not ours; and when they will no longer be looked upon as heroes of mankind. In that future those persons who have really created our civilization will receive the recognition which is their due. Let these thoughts dwell long in your meditation, because it is a serious problem in all our civilization to-day how to secure due recognition of the value of thought, and how to encourage it. I believe every word spoken in support of that recognition which is due to the power of thought is a good word, and will help forward toward good results."

When the great American biologist made this earnest appeal to his countrymen had he had a foreboding of the approaching storm of the world-war with all the horrors of frenzied militarism which has obsessed deluded humanity?

One thing stands out clear and distinct, and this is,—the source and aim of true human progress are *the cultivation and development of man's self-ruling, rational, free individuality*. This is also Man's happiness. For as the great Stagirite puts it: ἡ εὐδαιμονία τῶν ἀνθρώπων ἐστίν.

## BOOKS RECEIVED

*A Book of Remarkable Criminals.* By H. B. Irving, George H. Dofan Co. Pp. VIII and 315. \$2 net.

*Neurological Clinics.* Compiled by Joseph Collins, Paul B. Hoeber. Pp. 271. \$3.

*The Interference of Will-Impulses.* By Abraham A. Roback. Psychological Monograph Vol. XXV No. 5 Psychological Review Publishing Co. Pp. 158.

*Mortality Statistics, 1916.* Seventeenth Annual Report of the Department of Commerce, Bureau of Census. Government Printing Office, Washington, D. C. Pp. 545.

*Vegetative Neurology.* By Dr. Heinrich Higier. Nervous and Mental Disease Monograph Series No. 27. Pp. VII and 144. \$2.50.

*A Study of the Mental Life of the Child.* By H. Von Hug-Hellmuth. Nervous and Mental Disease Monograph Series No. 29. Pp. XIII and 154. \$2.

*The Whole Truth About Alcohol.* By George Elliot Flint. The Macmillan Co. Pp. XII and 294. \$1.50.

*The Challenge of the War.* By Henry Frank. The Stratford Co. Pp. XLVI and 365. \$2.50.

*The Twentieth Plane. A Psychic Revelation reported by Albert Durrant Watson.* George W. Jacobs & Co. Pp. 312. \$2.

*The Blind: Their Condition and the Work Being Done for Them in the United States.* By Henry Best. The Macmillan Co. Pp. XXVIII and 763. \$4.

*The Internal Secretions and the Nervous System.* By M. M. Laignel-Lavastine. Nervous and Mental Disease Monograph Series No. 30. Pp. XIV and 59. 75c.

*The Erotic Motive in Literature.* By Albert Wirdell. Boni & Liveright. Pp. 250. \$1.75.

*Miss Fingal.* By Mrs. W. K. Clifford. Chas. Scribners' Sons. Pp. 312. \$1.50.

*Handbook of Mental Examination Methods.* By Shepherd Ivory Franz. The Macmillan Company. Pp. 193. \$2.

*Deficiency and Delinquency. An Interpretation of Mental Testing.* By James Burt Miner. Warwick & York, Inc. Pp. XII and 255. \$2.25.

*The Psychology and Pedagogy of Anger.* By Roy Franklin Richardson. Warwick & York, Inc. Pp. 100. \$1.25.

*Psychology of the Normal and Subnormal.* By Henry H. Goddard. Dodd, Mead & Co. Pp. XXIV and 349. \$5.

# THE JOURNAL OF ABNORMAL PSYCHOLOGY

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## ORIGINAL ARTICLES

### LEVITATION DREAMS: THEIR PHYSIOLOGY

LYDIARD H. HORTON

*FOREWORD*—This paper recapitulates and amplifies certain data about the illusion of levitation that were previously published in the form of letters to Dr. Morton Prince.—The further advance, here outlined, represents investigations that have been carried on by "psycholexic" or descriptive, as distinguished from the prevailing psychometric, methods. These steps, in a field ordinarily shunned by psychologists, would have been impossible without the inspiration of Morton Prince's own pioneering methods in fields similarly shunned many years ago: those of association-neuroses and of shifting personality.

**T**O FLY, float or otherwise displace oneself through thin air without any aviating device whatsoever is an accomplishment obviously as far from actuality to-day as ever it was before the present era of man-birds. Yet undoubtedly from time immemorial, dream life has afforded just such a pastime to no inconsiderable proportion of mankind.

This experience is fraught with a fuller sense of exhilaration than usually befalls the aviator in his passage through the sky. They who know the Flying Dream always testify to the extraordinary feeling of reality which accompanies its special manifestations, and they usually acknowledge the touch of ecstasy which so often completes this welcome visitation from the unknown.

#### DREAMS AS STARTING POINTS OF MYSTICISM

It is interesting to note that the peculiarly vivid floating sensation which comes in dreams is not always taken by the dreamer to mean that he or she is flying. A more bizarre construction may be put upon that sense of bodily lightness, of freedom from the sense of gravity, which

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is so characteristic. For example, one may cite the conviction of many religious mystics that they were being borne aloft by angels. The same class of observers become imbued, like Saint Peter, with the belief that they can walk on water, or persuade themselves that they have been privileged to enter into direct personal union with the all-pervading Godhead. As Aristotle might say, these varieties of religious belief testify to great unity in the state of Sensibility, but to great diversity in the Understanding and Opinion. (1).

While occupying ourselves with the underlying fact—the cause of the floating sensation—we shall do well to consider those queer and erroneous ideas which have been entertained about this phenomenon and which today stand in the light of a true understanding of it.

Touching on the errors of the primitive mind, Thomas Hobbes remarks that mythology arose from the “ignorance of how to distinguish dreams and other strong fancies from vision and sense.” (2). To this deception he ascribes the worship of “satyrs, fauns, nymphs, and the like; and now-a-days the opinion that rude people have of fairies, ghosts and goblins and the power of witches.” The plausibility of this view of dreams as incitements to mystical notions is not contradicted by anything we know of the history of superstitious belief. It has even been reinforced by so modern a writer on dreams as Vold, who refers especially to the flying dream. His work (“Experimental Dream Production”) carries a curiously colored assumption that the whole phantasy of levitation is rooted in *erotic* motives; he cites particularly the representations of witches and charmers riding through space. Thus he pre-judges the whole matter at issue. His data serve, however, to emphasize the fact that this dream is second to none in the hold it retains upon the popular fancy.<sup>1</sup>

#### EARMARKS OF THE CONDITION

The sense of elation, of final achievement in the accomplishment of the imaginary flight is a common feature of the Flying Dream. It is often tinged with the memory of former disappointments now gloriously redeemed and ennobled by a certain altruistic desire to reveal the new power to the rest of the world—a truly “generous” emotion. There is also a distinct sense of well-being, a normal or super-normal euphoria, akin to ecstasy.

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<sup>1</sup>We may say that explanations based on erotic sensibility, wherever found, fall lamentably short of doing justice to the many features of the illusional state in question. But to show this, it will be necessary to go into the subjective aspect more fully.

One of our best known exponents of abnormal psychology, who had analyzed the phenomenon on his own account, remarked to the writer: "When I find myself thus able to rise by my own power, it occurs to me, 'This time I am sure of myself. It was not so before, but now I have mastered all the details. How easy it is; if only "they" knew!'"

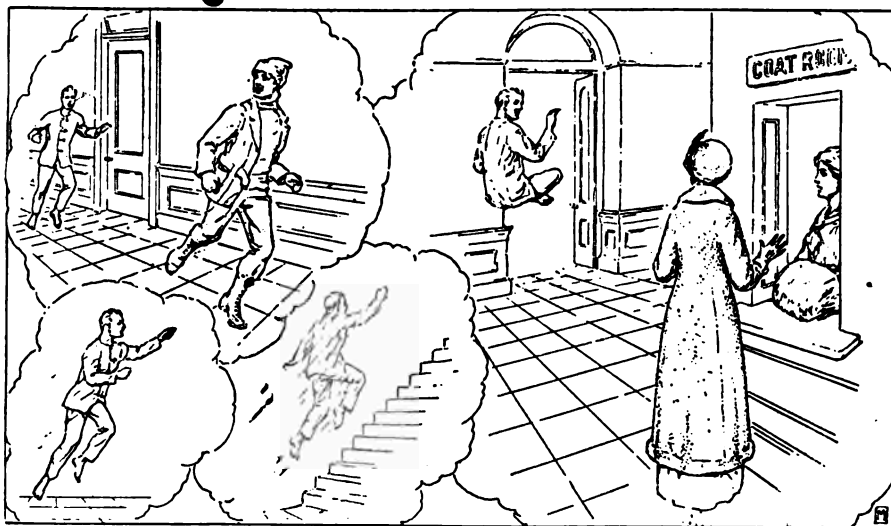
In widening one's range of observations upon similar cases, one finds that the separate instances can be classified so that they intergrade, as it were. At one end is severe alarm and the horror-of-quick-descent; at the other extreme, a milder form of alarm, or merely surprise, mingled with pleasant soaring sensations. This extreme may run into pure delight, and the *emotion of the sublime*. The existence of such a series does not, of course, prove that their different modes or moods could be produced by one and the same cause. This intergradation simply opens up the possibility that two causes with distinctive effects upon the dream fancy may be found in such actual physical relation, in Nature, as to combine their action on different occasions into all sorts of permutations.

As a pertinent example, there is the combination of a flying dream with a dream of falling. The unpleasant sense of falling is exceptional; and dreams in which "levitation" is recognized, figure very consistently in the category of pleasant dreams. The dream of flying, then, suggests normality: a conception prettily emphasized in the melodious language of Sir Thomas Browne in his "Letter to a Friend," where he speaks of the approach of death:—

"He was now past the healthful dream of the sun, moon, and stars in their clarity and proper courses. It was too late to dream of flying, of limpid fountains, of smooth waters, of white vestments, and fruitful green trees which are the visions of healthful sleep and at a good distance from the grave." (3).

#### CONTRASTS WITH DREAMS OF INSUFFICIENT CLOTHING

In contradistinction, there is a type of dream which is suggestive of anything but "clarity and proper courses." It ranks next in frequency and is generally called the Dream of Insufficient Clothing. Unlike the usual situation in the Flying Dream, we appear—e. g. when *en deshabillé* in a public place—to be making a response to the given situation that is evidently *not* the fit and proper one.



**THE WARM CLOTHING DREAM**  
Previously shown as Example Number One



**THE DISTURBER OF TRAFFIC DREAM**  
Previously shown as Example Number Two

As an antithesis to the flying dream, it brings out the fact that the latter affords in every way the feeling of right action and the sense of doing the natural and proper thing. This contrast is particularly noteworthy in those not infrequent cases where the dream of insufficient clothing actually appears as an antecedent of the flying illusion—both following upon a condition of cold or chill in sleep. The explanation almost suggests itself.<sup>2</sup>

#### VIVID SENSATIONS

Of all dreams likely to be mistaken for reality, the outright Flying Dream would seem to have the strongest chance. Small wonder then at the goodly number of historic cases where the dreamer actually believed that the power of flight had come to stay, and thereafter carried the belief to the point of trying his skill in waking life—without apparatus, *bien entendu*. Instances are recorded by Herbert Spencer where injury was suffered as a consequence of such clumsy aerial endeavors.

Tending to explain this confusion of belief is the remark of Hobbes that “the most difficult discerning of a man’s dream, from his waking thoughts, is when by some accident we observe not that we have slept.” (2)

A case precisely in point may be found in Munsterberg’s “Psychotherapy.” It is the story of a sick lady who, under the soothing influence of a Christian Science healer, talking to her at the bedside, falls into a reverie and then into a peculiar state (“somnosis”) akin to drowsiness; whereupon she experiences an illusion of bodily rising, matter dissolving around her, detachment from earthly contacts, sense of cosmic greatness, tremendous throbbing, and descent to earth again. The whole experience amounts to a recapitulation of characteristic fancies of the Flying Dream order, but with a striking emphasis on those features which one may properly speak of as *ecstasy*.

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<sup>2</sup>It is worth the remark (which is very obvious after it is said) that clothing sensations and cold sensations are both associated with the *epicritic system*, the fundamental system around which centers much of unwritten or half-written physiology. W. H. Howell’s “Text-Book of Physiology” maintains a clear distinction between this *epicritic sensibility*, which involves delicate discrimination, and the more generalized type of *deep sensibility*; this latter, we may believe, contributes to the floating sensation *per se* its characteristic quality, to wit: the very antithesis of pain, pressure and postural sense.



## A CASE OF ECSTASY—INVENTORIAL ANALYSIS

Ecstasy is perhaps best described as a semi-conscious state of relaxation, associated with a certain vacuity of mind or suspension of constructive mental processes. This case of Munsterberg's furnishes a picture of mixed reverie and physiological sleep that any reader can turn to with confidence as to its authenticity. ("Psychotherapy" p. 316). (4).

To be sure, the lady's sense of levitation and the allied phenomena were not identified by her as related to special physiological sources. She described a mysterious condition in which the imaginative features figured as a disguise to the bodily perceptions. But fancies may indeed furnish a sure index to the physiologic state.

To obtain the full conception of her ecstasy it is only necessary to correlate her report with the physiological picture, as we may reasonably suppose it to be. Clarifying hypotheses will mark the possible parallel between mental and physical phenomena in this strange experience, to wit:

*Bodily Rising:* This may come about through muscular relaxation, which entails marked alterations in the pressure sense. These perceptual changes would be then "projected" i. e. mentally externalized as if they were changes in the outside world, including the abrogation of the law of gravity.

*Dissolving of matter:* Further lessening of muscular tension and loss of localized sensations would diminish the hold of material concepts upon the imagination; spatial perceptions, contacts, pressures and other attributes of matter are missed by the patient as so many cues that ordinarily cause the recall of existing material surroundings. This is the bare associative fact. Other elements of sheer imagination concur: Mrs. Eddy's *denial of matter* must have come in for some attention, and have played its part in reënforcing that sense of a dissolving world which belongs to drowsiness. At this stage of relaxation the patient blends, into unity, impressions received from two sensory fields: deep sensibility and epicritic sensibility. The tactile sense is, however, not always affected in such cases; as, even in deep relaxation, the tactile discrimination may remain in modified form. (Some of my subjects have reported their contacts as "feeling feathery.").

*Detachment from earthly contacts:* This is an expression that correctly reflects the relation between epicritic sensibility (tactual changes) and deep sensibility. This mimics a sort of skin-anesthesia owing to the dropping out of the pressure component and to lapsing attention to sensations like those furnished from vasomotor changes ("blood vessel sensations"). This may be called a pseudo-anesthesia

of the skin, simply as a blanket-word to cover the deficiency of any standard conception on this topic. The outstanding fact is that the pressure sense is more obviously modified than the tactile sense. This is a palpable feature of drowsiness and lapsed attention, open to debate and experiment, but not requiring greater precision at this point.

*Cosmic greatness* and the *sense of swelling* are closely interwoven apperceptions of the disturbance of sensibility caused by the shifting of the blood-bed through vasomotor dilatation of the skin vessels. The physical fact is characteristic of sleep, but easily passes unperceived by the subject. When it is perceived, this dilation is readily apperceived (*ad-perceived*) in various ways: *grandeur*, *power*, *absence of limitations*, *courage*, *relief*, or what-not, that hinges upon the *absence* of sensation, or may be derived from specific space sensations attributed to the body (like the "growing" of Alice in Wonderland). Further, the same impressions may be projected, "externalized," as fancies of floating objects, of beautiful distances, great heights, infinite views. The agreeable feeling-quality that is the by-product of these "blood-vessel sensations" (cf. Wundt's classification of affective qualities) seems to draw in the esthetic element, and brings us close to what Ethel Puffer has called the "esthetic repose." (5).

As a whole, the importance of this "cue" as obtained from vasomotor relaxation, is due to the exaggeration or *auxesis* that belongs to sleep, wherein, as Aristotle has noted, we literally make mountains out of mole-hills.

*Throbbing like a dynamo*: Given the vasomotor relaxation we would have a greater perceptibility of the pulse, which would also be—in the drowse—magnified on Aristotle's principle of *auxesis*. In physiology, the greater beat of the pulse under lessened arterial tension is demonstrable as an hydraulic fact: the circulation being regarded as the hydraulic system. Changes in the pulse quality are easily disregarded, but "in the silence of sense" as Hobbes might say, they stand out very sharply, giving rise to apperceptions, that explain such analogies as "throbbing like a dynamo."

*The feeling of power*: At this stage of vasomotor relaxation—which is coupled also with extreme muscular relaxation—there is often a sudden adjustment of the vasomotor equilibrium that seems to entail a great sense of repose, yet increased capacity for action. This is akin to the effect of treatment by hydrotherapy in which the same circulatory mechanism is played upon. The difference is that the hose of the hydrotherapist does not play upon one in that passive state which is realized in the experiments for relaxation; for the "victim" of hydrotherapy is usually not fully relaxed, but active! Hence, there is not the exaggerated idea of the change in sensation.

*The descent to earth*: After a time, the biologic purposes of the functions above described (namely the recuperation of the individual and the recovery from over-tension) are attained; there is a lessening

of the several phenomena that appertain to energetic processes of recuperation. To understand this, we must, of necessity, assume the now current view that sleep and allied recuperative states represent an active instinct (Claparède) to antidote fatigue.

It will be seen from these tentative analogies that the floating sensation—there is one such strictly so called—is likely to be overlaid with other elements:—phantasmagoric, confusing phenomena. It is all the more necessary to reach some idea as to what we speak of when referring to the “flying sensation” or “floating sensation,” which is so fundamental in the experiences of pseudo-levitation. (See page 148 for illustrations showing typical dream-scenes.)

### THE FLYING SENSATION

As to the psychological nature of the sensation of flying, a caution is here in order. It has been suggested by Hutchinson in his book “*Dreams and Their Meaning*,” (6). It is to the effect that when we say that we feel as if we were flying, we probably give an untrue account of the Flying Dream. For in real life we do not know the sensation of flying, the majority of us. What happens to us is therefore something which gives us the impression that we imagine we should experience if we were flying.<sup>3</sup>

One may assert confidently that the characteristic sense of aviating or feeling of levitation has little in common with the sensations of real aviators. In the case of aviators, a true “ecstasy” has yet to be demonstrated; although it is certain that in their dreams aviators are

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<sup>3</sup>The relation of the sense of equilibrium (semi-circular canal impressions) to the floating, flying or levitation illusions is one we do not delve into here for fear of confusing the topic. It is probably only occasionally involved; and that more through associative memory than through any direct transmission of impulses from the nerve terminals for equilibrium. Supposing, however, that impulses do come from the latter, would it not be as a consequence of secondary activity of the dreamer under the influence of the dream? When I had vertigo [cf. p. 153] in an experimentally induced falling dream my equilibrium sensations were chaotic because I confounded the real sensations of light-headedness at the time with the usually associated equilibrium sensations. On the other hand, it might be said that compensatory movements were made by me as a reaction to the sense of vertigo following light-headedness. Further, it might be that the sudden loss of blood from the head (bleeding into the body cavity) which was a feature of this experiment, may have produced not only the sensation of light-headedness but also have brought about a local disturbance at the seat of the equilibrium sensations. To determine which supposition is reasonable, or what combination of them should be accepted, is a matter of collating our knowledge of the physiology of equilibrium, and of vasomotion. With the specific reports of aviators' tests available, this should now be possible. But this had better be left for a separate discussion; and, in any case, it is a subordinate matter in the genesis of the levitation illusion.

more likely than others to identify their levitation illusions with their actual experiences in the air.<sup>4</sup>

However that may be, they are few and far between who report anything but positive delight from the typical Flying Dream. This remains true in spite of the fact that these dreams are experienced by certain persons in conjunction with the unpleasant Falling Dream. The only supposition that can reconcile the two distinct occurrences as part of the same dream is that they are apperceptions (necessarily false ones) of two successive phases of the basic bodily condition. This is clearly shown in those examples of levitation (cited in a preceding paper) where one dreads the expected crash of the object floating in space.

Moreover, in one instance—alluded to as having been reported to Dr. M. Allen Starr at the time—I actually produced a falling dream in the course of an experiment for the control of vasomotor relaxation. Specifically, this incident gave rise to, first, (a) marked swelling of the body and (b) floating sensation; and immediately thereafter to (c) falling sensation, as of tumbling through illimitable space (presumably, blood leaving head to enter skin vessels). Somehow, in spite of an awful feeling akin to vertigo, I seemed to realize the possibility of controlling the condition, and promptly startled myself out of it. This is precisely analogous to the experience that occurs in dreams, in which “flying” is followed by “falling;” the horror or fear engendered usually causes one to wake up amid struggle and distress. In such a case, a real aviator will dream of a “nose dive” unsuccessfully managed, which he “comes out of” with difficulty.

#### THE CONTRIBUTION OF HAVELOCK ELLIS

The professor earlier cited (Dr. J.) said that the origin of the illusion from the “waking standpoint” was still a mystery to him. That was early in 1910. In the October *Atlantic Monthly* of the same year Havelock Ellis published his paper on “Aviation in Dreams;” and I must in justice record that the professor above referred to, with all his knowledge of this class of phenomena, very readily accepted as conclusive—if not final to the last detail—the explanation of Ellis. And for a time it seemed to me too that it would be difficult to carry the study of the matter any further.

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<sup>4</sup>The immense extension, in recent years, of the practice of aviation could easily have proved a source of confusion in the present discussion, had not the data on which it is based been gathered long before aviation became at all common in real life.

On second thought, however, one sees that Ellis' paper does not assume—thoroughgoing as he is—the air of a finished interpretation of all the phases of this phenomenon. It leaves open for debate a number of important questions, which we must consider in the present essay. To be sure, Ellis definitely takes the view that the illusion of aviating is provoked by certain localized bodily sensations. Primarily there is, he believes, a diminution of the skin sensations from the surface upon which the body is resting. (My data suggest that this aspect may be due to the diffused sense of vasomotor relaxation). He dwells on the part played by certain irregularities in the action of the heart; and to complete what may be called the bedside or clinical picture of the condition, he mentions certain changes that occur in the breathing.

According to this psychologist, then, three factors concur in the genesis of the Flying Dream; to wit, perturbations of heart action, alterations in respiration, and changes in the sensations from the skin. But these are the chief bodily modifications to be observed in any phase of sleep, dreamless or otherwise. And Mr. Ellis has not pretended to describe these features in a way that would furnish a definite physiological picture of the "somatic substrate" which underlies the illusion of levitation.

The physiological point of view requires a more precise depiction of the bodily events than Mr. Ellis, writing as a psychologist, has furnished in his valuable paper. Is the bodily condition pathological or is it normal? Is it a capricious variable phenomenon or does it afford a definite clinical entity? In answer to these questions, the present intention is to show that the typical Flying Dream can be traced to definite physiological sources.

#### THE EXPERIMENTAL SIESTAS

Specifically, as I have noted in a previous paper, illusions of levitation arise during experiments in which a characteristic condition (kinesthetic repose) is realized by the subjects. Eight cases out of thirty (in one set of experiments) reported distinct illusions analogous to the flying dream. It has also been made clear that I myself have experienced these various illusions, and states of sleep, as by-products of experimental studies in deliberate relaxation.

Every artificial circumstance was set aside in these experiments and naturalness was made the keynote. This was carried so far as to eliminate from the work any insistent questioning of the subject, such

as is commonly practiced in ordinary introspections of the psychological laboratory. Spontaneous utterances of the subjects formed, at first, the principal basis on which was built the present conception of Kinesthetic Repose.

The idea of naturalness in obtaining the data was carried so far as to fit up a special room in the style of an ordinary study, in an office-building suite, adjoining a quiet University Law Library. There, on a matter-of-fact basis, business men and law students were invited to try intensified repose—as a measure of personal hygiene—while scarcely realizing that they would pass under experimental observation. At the same time, facilities were provided in this room, for more confessedly experimental methods. There was a buzzing fan that could be regulated, so as to produce a pleasant droning sound of any desired intensity and with considerable variations of tone-quality—results obtained by manipulating the air-duct enclosing the fan and by a rheostat in the next room. In this, the outer office, there was a booth, connected by a telephone line with the study. A phonograph, in the booth, made possible the playing of musical or spoken “records,” thus reaching the subject with the minimum of distraction from the operator’s neighborhood. The receiver was, in fact, suspended at the head of the Morris chair. This device made convenient the lulling of a person to sleep, if desired; in any case, it was always possible to waken the subject gradually without entering the room; thus also avoiding uncontrolled sounds that might break up the experimental siesta. Here it may be noted that experimentation of this kind, being aimed at a delicate equipoise, is apt to require the strictest attention on the operator’s part, in order that no untoward noises and chance by-effects upon the subject should interfere with the smooth course of reveries and relaxation. On the other hand, curiously enough, it was found that the installation of noiseless or soundproof surroundings, or any elaborate and pedantic apparatus, neutralized all endeavors to produce normal rest states—what we call “somniaes.”

The most ideal surroundings are those in which there is a moderate amount of stirring from the outside world, mitigated indoors by a certain sense of isolation and security. This much may be said by way of explaining that the sleep-states, although experimentally produced, were definitely related to the environment; as such, they were reactions to a situation; the sleep or rest situation. They were produced under conditions of genuine *leisure*.

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 "SOMNOTIC" STATES AS ADAPTED REACTIONS
 

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Among natural responses to the environment, is the type of reaction that I have earlier spoken of as *acopic* (i. e. an anti-fatigue state of muscle-and-nerve relaxation that is methodically induced). In this connexion, the point was made that some "somnoses" may constitute *body-sleep* without entailing a disturbance in the awareness of the environment. (7).

To put the matter differently, a truly *acopic* method for inducing special states of attention and of relaxation should not in any way be regarded as an anesthetic or as a hypnotic or as a form of imperative suggestion would be, i. e. as artificial. For of all these, the principal earmark is the fact that they place the individual *out of relation to his environment* and inhibit responsiveness to the true situation. Somnotic states, experimentally realized by the Acopic Method, appeared to be *adapted reactions* to the biological situation, as presented and described to the subject by the operator; albeit the surroundings (i. e. of quietness and security) were artificially created, in the interest of the experiment. As the experiments went on, this fact became more and more clear, so that in 1908 the conception of the *sleep situation* as something to which the individual reacts biologically through an active instinct, had become more and more realizable in the laboratory. This essentially accorded with Claparède's now well-known writings on the biological conception of an active sleep instinct. Thus, Acopic Method simply means the technique developed by trial-and-error whereby one could play upon innate anti-fatigue tendencies in the organism. From this anti-fatigue viewpoint, the sleep instinct reveals its mechanism as not inconsistent with the survival of consciousness.<sup>5</sup>

## THE MID-STATE OF ATTENTION

During the experimental *somnium*, a characteristic mental attitude was found, which often bred experiences of pseudo-levitation. As I have already explained in the letters to Dr. Prince, it was a mid-state of the attention. It was free from effort and to that extent passive; but it had this in common with one's ordinary alertness in the state of vigil ("*état de veille*") that there was no disaggregation of consciousness. The sense of awareness, regarding the environment and the bodily state, remained orderly and was free from those lapses

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<sup>5</sup>Mary de Manacéine to the contrary notwithstanding: "Sleep is the resting-time of consciousness." (7).

into drowsiness that usually appertain to one's relaxation of mental and motor processes. It was through the experimental cultivation of this "mid-state" that certain incidental features came to be observed and to acquire special significance, as throwing light upon the genesis of the flying dream and of the related illusions. Associated, then, with the attainment of this mid-state of attention, there were found peculiar alterations of feeling tone, so distinctive and so constant and so well ear-marked that they seemed to require a label and to deserve the name by which I shall again refer to the state, i. e., kinesthetic repose.

Now, among the varieties of kinesthetic sensations in deep repose, there is one particular blend which may be discriminated as the kinesthetic revelation.

This is so labelled by allusion to the "revelatory" quality of this phase of repose, a quality also met with in the well-known anesthetic revelation.

William James has called attention to this sense of revelation in its different forms (ether revelation and nitrous oxide revelation) and thus has brought it within the pale of science—so far as it concerns anesthetics. (8).

Yet, without anesthetics and without hypnotics in the "abnormal" sense of the word, but through sleep induction (Somnotic states) and under conditions just described, my subjects experienced sensations that provoked psychic impressions quite comparable to the "revelation" of anesthesia.

In this peculiar phase of "consciousness under anesthesia" there is—while regaining ordinary consciousness—a very noticeable striving toward an "impossible" utterance of one's ineffable subjective mood. There is apt to be a sentiment as of having been vouchsafed a great and deep understanding "of things," or of having heard some wonderful pronouncement upon the meaning of human destiny. . . . We cannot wander into the field that opens up here, with its vista of debatable ground, belonging to the remote provinces of mysticism, of religion, of ethics and of the spiritual sense. We can only pause to disclaim all sophomoric pretention of destroying any prized spiritual values residing in such experiences, by the matter-of-fact tracing of its physiological groundwork. Otherwise, it would be as if Stendhal, in his "Essay on Mental Geology" should attempt to deny the flowers that bloom on the surface, merely for having traced out the stratifications beneath the soil. (9).



The Kinesthetic Revelation may be regarded as the *ne plus ultra* of the Kinesthetic Repose—and this limit merely expresses the quality of those varieties of rest states that tend to approach it. Simply enough, RELAXATION—mental, motor, or what not—is its asymptote!

*Tableau of Conditions Related to Normal Sleep and Dreams*

SOMNOTIC STATES	Realized by Acopic Method	{ <i>Mid-state of atten- tion</i> (bodily relax- ation; no fatigue)
	for Regulated and Relaxed Attention	{ <i>Kinesthetic Repose</i> (extreme bodily re- laxation; passive conscious- ness)
	Lapses of Regulated Attention	{ Kinesthetic Revelation Illusion of Levitation Flying Dream

KINESTHETIC REVELATION

That state which we are attempting to visualize has been described as having supremely the character of the ineffable, the Unutterable. Of the nearness of the kinesthetic revelation to the state of reverie or of its kinship to ordinary sleep as a recuperative function, there can be no doubt.

Varying forms of the kinesthetic revelation are definitely recognizable, although difficult to formulate in words, the commonest being: (a) the "illusion of understanding," in drowsy persons and (b) the idea obtained in the course of a dream that one has heard or composed some wonderfully fine and expressive utterance, such as a poem—which, if recollected at all on awakening, turns out to have been commonplace or even nonsensical. Of other features much testimony will be found, confusing to those who have not met the condition in their own direct experience.

What I wish to convey is the fact that, like other illusions of a grosser and more easily described type, the kinesthetic revelation represents the automatic attempt of the mind to respond in articulate thought to impressions supernal to waking experience. The mystery is, however, not beyond intellectual appreciation if we but transpose

our opinions of what we call *waking experience* into the framework of what we may call *sleeping experience*. Is a sleeping person to be regarded as any less truly subject to experiential impressions than a waking person? No, indeed; the experiences may be less, but they are none the less experiences.

In Edgar Allan Poe's "Marginalia" is found a passage in which this supposedly always imaginative author confesses, in a vein of convincing sincerity, that he had once been confronted with this class of human experiences in a way that seemed to defy the power of words. If I read him aright in the illumination of laboratory study, it must have been with the kinesthetic revelation that Poe was experimenting. I have delayed expressing its subtler features till now, perhaps because the very vagueness of the relaxation phenomena in question should be presented by a masterly pen, rather than by my own.

"There is, however, a class of fancies, of exquisite delicacy, which are not thoughts, and to which, as yet, I have found it absolutely impossible to adapt language. I use the word fancies at random, and merely because I must use *some* word; but the idea commonly attached to the term is not even remotely applicable to the shadow of shadows in question. They seem to me rather psychal than intellectual. They arise in the soul (alas, how rarely) only at its epochs of most intense tranquility—when the bodily and mental health are in perfection—and at those mere points of time when the confines of the waking world blend with those of the world of dreams. I am aware of these "fancies" only when I am upon the very brink of sleep, with the consciousness that I am so.

These "fancies" have in them a pleasurable ecstasy as far beyond the most pleasurable of the world of wakefulness, or of dreams, as the Heaven of the Northman theology is beyond its Hell. . . . It is as if the five senses were supplanted by five myriad others alien to mortality. . . .

Now so entire is my faith in the *power of words*, that at times, I have believed it possible to embody even the evanescences of fancies such as I have attempted to describe. In experiments with this end in view, I have proceeded so far as, at first, to control (when the bodily and mental health are good) the existence of the condition:—that is to say, I can now (unless when ill) be sure that the condition will supervene if I wish it, at the point of time already described: of its supervention, until lately, I could never be certain even under the most favorable circumstances. . . .

I have proceeded so far, secondly, as to prevent the

lapse from *the point* of which I speak—the point of blending between wakefulness and sleep—as to prevent at will, I say, the lapse from this border-ground into the dominion of sleep. Not that I can *continue* the condition—not that I can render the point more than a point—but that I can startle myself from the point into wakefulness—and *thus transfer the point itself into the realm of Memory*—convey its impressions, or more properly their recollections, to a situation where (although still for a very brief period) I can survey them with the eye of analysis. For these reasons, that is to say, because I have been enabled to accomplish thus much—I do not altogether despair of embodying in words at least enough of the fancies in question to convey, to certain classes of intellect, a shadowy conception of their character.”

—From Poe's MARGINALIA.

It is a far cry from the rapture that Poe dwells in, to the bald statement that the physiological condition underlying such mental experience, as reported, may be distinctly correlated with states of relaxation. Yet, Poe, analyst, would have been the first to welcome a practical approach to the “psychal impressions” that he experienced. For scientific progress, we must “mesh in” an intellectual reverse-gear and recede from the “subjective” view-point that such ethereal sensations do represent a state of affairs *external* to one's organism. For, as Gurney said, when music seems to be yearning for unutterable things, it is really *we* who are yearning for the next note. (10). In this same way, might not Poe have made use of modern knowledge to reassure us that the kinesthetic repose need lose nothing of its rare quality, even though we may explain its most subtle and “psychal” manifestations as simply due to a delicate, labile state of vasomotor equipoise, fancifully apperceived in a state of rest. Such I believe it to be, and yet none the less interesting in relation to all that is essentially valuable in the biological state called ecstasy. For ecstasy is a congener of the rest instinct.

Edgar Allan Poe did not succeed in maintaining the condition that we have provisionally called Kinesthetic Repose beyond what he calls a “mere point of time.” In my experiments, however, under more technical conditions, the subjects with whom I collaborated succeeded in maintaining the state in question for hours at a time. From certain of these subjects, pulses and breathing curves were taken. These experiments indicated that the subjects developed, even under experimental measurement of this kind, all the essential features of Kinesthetic Repose. A particular subject from whom a kymographic tracing

was taken, had lain in one position without stirring for one hour and twenty-three minutes; during that time he remained fully conscious and was able to answer questions (as to his state of relaxation) with promptness and intelligence, using a push button system that recorded *yes* and *no* on the kymograph, with only infinitesimal effort of the subject's index finger. The point of this particular record is that it demonstrated that the ineffable condition, described by Poe, can be experimentally maintained and analyzed.

What seems to justify the parallel to the anesthetic revelation is the strangely manifested and altered inner mood: subjects report a "sense that time is no more," or of personal non-existence. In cases of protracted reverie, they report no consciousness of time or else a sense of infinite duration. Marked exaltations in the sense of well-being are described (euphoria).<sup>9</sup>

#### INSTANCES OF "PAN-SOMATIC" SENSIBILITY

An experimental case, studied in the laboratory of physiology at the College of Physicians and Surgeons, New York, afforded an interesting suggestion as to the origin of the sense of unearthly powers. When a set of tuning-forks was set going, the subject heard them with perfect understanding of their nature, but, nevertheless, reported as follows: "Do you know, I heard those tuning forks *everywhere in my body* more than in my ears!" This may be a pure illusion, or it may be a sort of pan-somatic sensibility dependent upon the delicate vasomotor equipoise. In any case, it shows the possible substrate of the illusion of grandeur. Another case had a wonderful sense of uplift from a Hudson Steam boat whistle that seemed to vibrate all over him, while he was lying down, relaxed to the point of lethargy.

There is much more to be said about this special sort of "pan-somatic sensibility." It is, indeed, such that those who have known it experimentally, can understand the words of Poe when he says: "It is as if the five senses were supplanted by five myriad others alien to mortality."

This sort of testimony crops out again and again in the utterance of mystics. Poe cannot be so accounted in this matter, for however appropriate his words might be to the description of the illusional condition in question, he was evidently presenting the matter in a spirit distinctly scientific.

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<sup>9</sup>Let us not forget that time-sense and Kinesthesia are physiologically allied.

Strange as it may seem, the utmost familiarity with this physiological experience of Kinesthetic Repose and the most intensive analysis of it, do not take away its intrinsic merits, if we may so call them. It remains *sui generis*, with all the attributes that belong to a healthful, normal, and recuperative sleep state. But even when one has become fully sophisticated with regard to the experience, it may still, at any time, unexpectedly deceive the mind with certain illusional phenomena, among which the most prominent and likely to occur is the illusion of floating or levitation. This is the experimental fact that lifts the veil of mystery.

At first sight one would think that kinesthetic repose must belong only in a group of experiences related to the outgivings of long-locked mystics or hair-shirted ascetics. These vague outlines would seem incapable of being filled in with anything concrete, were it not that, in laboratory experiments, as just stated, subjects reported experiences that precisely fit into the frame that Poe has, with more than the ordinary power of perception, created.

Our data were gathered on the same basis of commonplaceness that might appertain to the reports of young men in training quarters (where "the bodily and mental health are good!") speaking to each other casually of their feelings of fitness. Any of such youths could (after instruction in this subject) recognize among his mates the unconsciously given signs of the Kinesthetic Repose. As, for instance, when he would see one awake delightedly and stretch himself on his cot; saying, "Gee! I feel as if I had been asleep a week." And the raised corners of the mouth, the laugh and the posture, and the refreshed bearing of the individual are more eloquent, and possess a more truly scientific import to the physiologist than any verbal expression.

The kinesthetic revelation is simply the acme of the kinesthetic repose, and, underlying it is an extremely restful condition, comparable in degree to the literally entrancing lethargy of anesthesia, such as is known to underlie the anesthetic revelation.

Passing now to the somewhat heterogenous collection of instances of levitation, semi-levitation, flying dreams, and all the concomitant sensations with which we have been concerned, in this and the previous papers, it should not be argued that because these various phenomena have striking points in common and form a connective series, that they are, in equal degree, assignable to the basic psycho-physiological condition here called kinesthetic repose. No such logic or argument



THE ANGRY SHEIK SCENE.

This is a clear case of the function that Hobbes called the Fiction of the mind.

Whether from a seventeenth or twentieth century point of view, we can equally well understand what has happened in this dream. The mind has compounded in a more or less complete resolution (as it were, in full response) all the cues operating upon the sensorium—cues which we have explained as typical of the processes and resulting sensations set up by the sympathetic nervous system, when stimulated by adrenin. Here, then, we can dispense with the idea of a strict "competition for the final common pathway"; and lay our emphasis on the resolute or compounding effects in the higher centers. This illustration is simply a more complex example of the "resolution of physiological states" (Jennings) which, in a previous paper, we illustrated by the case of a Japanese poetess, who was asked to combine several given cues into one word-picture. The cues were a triangle, a circle, and a square; and the Japanese poetess responded as follows: "Raising one corner of the mosquito netting, lo, I behold the moon."

is relied upon. In fact, the appeal here is not yet to logic but to the capacity for visualization. (11). What has been offered hitherto is not in the nature of experimental proof; it is intended by way of exposition. The subject is too new for anything but preparatory data.

To resume, Kinesthetic Repose is, then, only a certain aspect of the bodily condition favorable to "levitation." I am concerning myself with reports of certain experiences which, intelligently digested in conjunction with existing physiological knowledge, point to a definite physical state that underlies and provokes pseudo-levitation. My proposition is that this fancy may be traced to its bodily source through the sort of spontaneous experimentation that literally lies in wait, detective fashion, for the facts to bring their own evidence before the mind of the "relaxing" (not necessarily "sleeping") person. (12).

In such observations, the race is not always to the most scientific researcher; luck plays a part, as indeed it has played a large part in invention and discovery at all times. And I do not interpret the scientific ideals of my "experimental" confrères in psychology to imply that one should pass by, or affect to despise, data that have been offered by the "spontaneous experimentation" of Nature herself dealing with the individual.—Let me give an example:—

#### THE WHISKEY HAMLET DREAM

On a warm night, the dreamer slept with a minimum of clothing. It was in the Berkshire hills, where the nights are apt to turn cool even in hot weather. As everyone knows, cold breezes come down from the wooded hills through the steep valleys. Toward morning a dream occurred as follows: I was looking out of a window at a frosty landscape. There were steep wooded hills with a road winding through a narrow valley at the base. Miserable looking huts, stamped with poverty, formed a little hamlet at the roadside. At such a prospect my disgusted reflection was, "That is a place that would drive a man to drink," (the clear indication being that the misery of such a locality would make the pleasures of alcohol the only possible corrective). Presently I felt that some one had given me a drink of whiskey and the pleasant glow spread upon me from the comforting draught.

I waked and then the real situation burst on me.

There was a strong cold draft coming through the window (with its prospect of wooded hills) and even as I waked, I felt a cold shiver pass off, while the greater part

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of the exposed body-surface was deliciously being warmed by the vasomotor dilatation.

Here we have many pungent elements of experience that were identified by this subject as having been felt often before, in previous relaxation experiments, without (I trust it may be believed) the artificial help of either cold drafts or of draughts of whiskey.

Obviously, the real common element was in the vasomotor dilatation.

The more fanciful elements of the dream can easily be accounted for as imaginative plays, understandable to anyone who has taken a dose of whiskey medicinally in cold weather, and has noted the circulatory effect and bodily exhilaration.—i. e., the vasomotor comfort.

*This fancy is of the same type of construction as that of levitation.*

Now I have come to insist on the vasomotor element in the illusion of levitation, although this illusion as such does not appear in the above dream! Nevertheless, we may say, *it was on the point of appearing* when the dreamer regained full consciousness. In support of this view, we must pass on to a neighboring case where the same sensory concomitants formed the antecedent of an unquestionable levitation dream. For, in spite of the present tendency to decry the logic of Intermediate Steps, no less severe an experimentalist than Professor Munsterberg justifies us by saying that the proper way to relate phenomena to each other is to show a gradation of cause and effect in the form of a series; and so, although knowing the danger of the abuse of such a method, I will adduce another and clearer instance.' (13).

The so-called Angry Sheik Scene forms the connecting link. It was, in every sense, a dream *picture*—because the illusion of motion was not there. On the contrary, there was absolutely still life, in the sense that the representation of a caravan in the desert, being overtaken by an angry sheik on horseback, was seen as if drawn upon a wall, retaining definite marks of the artist's crayon.

The thing that lends vividness to this dream-testimony, as an illustration of the underlying conditions of the illusion of levitation, is that it was implicated in the imagery of the Warm Clothing dream, once before pictured—being the one hitherto omitted scene of this dream.

In the Warm Clothing dream, the insufficiently clad dreamer sees



the Angry Sheik picture on a wall as he runs by, in pursuit of Smith. Need I embarrass the present thread of thought by calling attention to the various sensations already vicariously represented in the picture. Let it suffice that, given the obvious fact of a dream of insufficient clothing as the antecedent of the Angry Sheik phantasy, and given the illusion of levitation in the consequent part, the Angry Sheik Scene should be interpolated as the key to the physiological state.

#### PSYCHO-PHYSICAL PARALLEL IN ANGRY SHEIK DREAM

*Bertillonage*: Haughty lady at left is *cold* in spite of the desert heat. The hooded saddle rests upon a blanket made in Germany (by Professor Doctor Jaeger) from camel's hair wool. The sand of the desert is prominent. The heated and irate gentleman at the right who shakes his fist at the lady and looks daggers, has come from afar to traverse the leisurely march of her caravan and, with malice aforethought, brings along his new wife—to spite the haughty lady, who once had been his affianced.

*Reconstitution*: The *cold* lady is a mental reflex from the *chill* sensation that initiated the dream. The Jaeger blanket is a relayed association from a previous dream-scene when the dreamer was pursuing warmly-clothed Smith. This is, in fact, a search for a comforter, mirrored in fancy. To this same series we may attribute the warm burnooses of the camel drivers, which recall Hosea and the frieze of the prophets. (Note that the design woven in the blanket was also a frieze.)<sup>8</sup>

But the misery of being cold engendered other reactions, both mental and physical: goose-flesh appears, and with it a mental mirage of sand in the desert. In fact, the whole scene is painted under the control of these several stimuli acting concurrently; we should scarcely guess at their existence, had not the other scenes of the dream given us more unalloyed reactions to the several physical conditions, in turn. For there is also the *incipient shiver* to be considered as part and parcel of a complex, but unified, reaction of the autonomic nervous system: goose-flesh, shivering, shaking, hair-rising, and lastly but not least the vasomotor dilatation.

These we can reasonably anticipate from the circumstances of the dreamer's chilliness, and we can look for their mental representations in the projected fancies of the dreamer. They are, in turn, "shaking" of the fist, anger on the part of the Sheik, the mad plunging of the horse, whose aspect is as heated as that of his rider (vasomotor warmth) . . . But we are getting ahead of the story, for nothing has yet come to explain why the madly hurrying horse should

<sup>8</sup>Punning changes on the vowels *e* and *i* can be traced in the dream, i. e. sheik shake; frieze, freeze.

intervene among the calm camels. The answer is physiologically not complex; vasomotor dilation is a circulatory disturbance, and is often associated with another circulatory change, to wit, an alteration in the heart beat. This may be found, time and time again, in dreams where the heart is known to have been affected, whether on the physiological plane or on the emotional plane. Rapid vehicles or any rapid means of "exciting" transportation thereupon figure in the dreamer's phantasy. Already, it may be said that any rapid or shifting transportation (e. g. the Chancellor's dream in "Iolanthe" by Gilbert and Sullivan) is virtually diagnostic of circulatory disturbance.

Under these circumstances of circulatory disturbance, the next scene of the dream—the levitation scene—was born. Can their connexion be doubted? We refer to the Warm Clothing Dream, in which the dreamer levitates airily by and beyond the coat room. He has no use for warm clothing now: for THE VASOMOTOR ANTI-CHILL REACTION HAS ACCOMPLISHED ITS PURPOSE AND HAS THROWN ITSELF OVER THE PERSON AS SURELY AND AS WARMLY AS ANY OF THE LONGED FOR COMFORTERS.

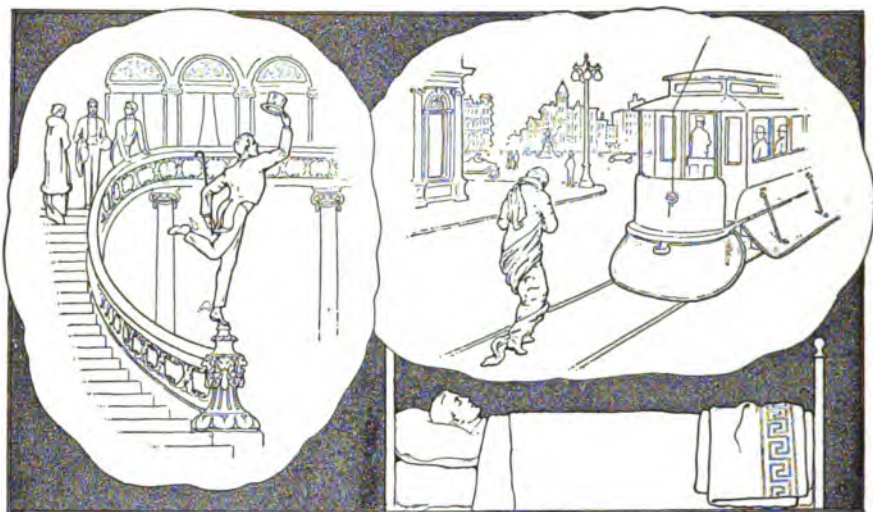
This is a somewhat broken and inadequate recapitulation of the natural phenomena underlying the dream and leading up to the levitation scenes. It is inadequate because Nature, in comparison, does things more smoothly; and we may well ask whether the exquisite blending of fancy by which the Angry Sheik picture becomes the mental response to numerous sensational cues, may not—still in nature's smooth course—be matched in the underlying physical mechanism. I mean to refer to what is back of the vasomotor changes that here certainly preceded—even if we still hesitate to say that they caused—the floating illusion.

These vasomotor changes do not stand alone. They are part of a physiological "show." In the Angry Sheik dream, we have threaded this way and that through the physical and the mental planes: *chill* reactions, *hot and cold* attitudes of characters, *shaking or shivering* members, *trembling* gestures of rage, *rapid* motion, and the solacing *exploit* of arousing jealousy in another.

Likewise, in the Whiskey Hamlet dream we have an exhibit of misery from cold, and mental reflections upon a cheap form of *exploit* or *solace* (being driven to drink).

#### THE UNIFYING CONCEPTION

In part, these mental reactions are assignable to cold as a sensory cue. For the rest, it is a verifiable prediction that in most such dreams the substratum is a chain of physiological responses as definite



### A FLYING DREAM FRUSTRATED

By Subconscious Perceptions of Foot Situation

The dreamer had gone to sleep with a certain deliberate relaxation, neglecting, however, to remove the heavy camel's-hair robe pressing upon his feet. In the course of this sleep, Kinesthetic Repose was achieved; there came a sense of elation, elevation and levitation, reflected in the first scene as an exploit of "showing off" under the pose of a Flying Mercury, on the balustrade of the Opera House foyer. The "dream choice" (*Oniric* selection, technically speaking) of this pose is controlled by the continuing pressure-sense in the foot region, obviously derived from the kinesthetic sensations set-up by the robe in question. This promptly frustrates the illusion of levitation insofar as the dreamer's fancy cannot take wings like the Flying Mercury, but has to remain fixed to the pedestal. Moreover, the robe, as an impediment, becomes the controlling factor in the second scene; this shows the dreamer pursuing a lumbering electric car. Note that this car has some steps visible, but that its "running gear" is covered by heavy fenders. *Embarrassed locomotion* is thus reflected in three figurations, constituting a series of three apperceptions of the dreamer's foot-situation. Note that the robe in the dream was a Russian pony skin: an evidence of imperfect association with the familiar camel's hair (Jaeger) blanket, which the sleeper often draped around his shoulders on cold nights.

To understand the dream fully, observe the contrast between the upper and the lower part of the body; the lower being embarrassed, the upper free. Embarrassed running gear, etc., reflects the persisting kinesthetic sensations (pressure sense and joint sense.) The Flying Mercury attitude, however, reflects the freedom of the upper portion, due—we may believe—to the loss or diffusion of kinesthetic sensations; of which the controlling factors are explained in the text.

This dream calls attention to the fact, observed in laboratory experimentation with kinesthetic repose, that *greater freedom of the lungs* may crop out prominently in levitation dreams. (Subjects frequently wake in the night, recognizing the very changes in the general condition of heart, lungs and circulation that link up with the levitation illusion.) The heart condition is reflected in the *staircase*, the *running* and the *steps* of the street car. Now is there any reason to suppose that the expansion of the lungs figures here, as in other dreams that could be cited at length? Probably; we may say. For purposes of exposition, we can point to the likelihood that the "choice" (*Oniric* selection) of evening clothes is controlled by the sense of lung-easement, owing to this sleeper's association of *evening clothes* with *freedom* of chest movements.

as if whiskey had been given to antidote the chill. These responses, individually, can be unified in relation to the concept of highly adapted or purposive reflexes: those of the adrenal-sympathetic mechanism.

Let us try to conceive of this unity as due to the nerve-action of a single fluid, as liberated in the circulation. And let us call this *adrenin*, for that is *par excellence* the substance that can be counted upon to put the autonomic (sympathetic) nervous system through all its paces. These we have glimpsed, as through a distorted glass, darkly, in the Warm Clothing and in the Angry Sheik dreams.

The essential thing to be noted is that adrenin is particularly associated in Nature with any violent action or exploit. Hence occurs the reciprocal or cyclical action in the dream whereby the exploit-idea is aroused when the characteristic functions of adrenin are automatically initiated in sleep. This explains the many "showing-off" features of such dreams.

We can carry the conception of adrenin or adrenal action to a useful conclusion in this case if we understand that adrenin produces gooseflesh, shivering, pallor (as in chill), a sense of warmth and the shaking of the muscles. The shaking of the fist in a dream may, therefore, be—and undoubtedly it was in the Angry Sheik dream—a mental apperception of shivering, conceivably founded upon a stimulation of the sympathetic nervous system by adrenin, or exactly as if by adrenin. The vasomotor dilation, following later, after adrenin had been at the height of its constrictor effect, must also come in for consideration by us: it does receive consideration from the dreamer in the shape of the consequent illusion of levitation, which is to be explained as mainly a reaction to the changes of the sensorium produced by the grateful, diffused "blood-vessel sensations." Hence, the play upon the idea of solace or comfort.

To emphasize the aspect of this secondary adrenal action which leads us to the physiological conception of the levitation illusion, we should further consider another dream, in which there is a definite illusion of levitation and many associated earmarks that place it in close touch with the other dreams here cited. It has already been presented in a general way in a previous paper. It is the Disturber of Traffic Dream, as illustrated on page 148.

#### THE CIRCULATION AS VEHICULAR TRAFFIC

Here the landscape is far from being a sandy desert: apparently goose-flesh did not figure in the phantasy. The rapid transportation

is there, and there is an irate policeman, shaking his club at the puffed-out dreamer in passive levitation. The sinuities of the parkway are, obviously enough, reflections of the blood-vessel pulsations, just as the vehicles are of the heart beat. Moreover, this dream is distinguishable by a somewhat rare type of illusion based on kinesthetic sensations in the foot region, transposed phantasmagorically into the field of the hand, and belonging to the class of stereognostic judgments. Indeed, this is a convenient occasion to say that the levitation illusion might be called "a-stereognosis," an inability to form correct perceptions and apperceptions of objects in their spatial relations. This is mediated by the deep sensibility or kinesthesia.

This disturbance of perception is due, not merely to the dropping out of familiar kinesthetic sensations that guide judgment even in sleep, but to the overlay of other sensations, such as those of vasomotor changes, affecting the pressure-sense discrimination.

But these overlays are themselves referable to the action of the peculiar secretion of the adrenal glands, acting forcibly through the sympathetic nervous system, as stated.

As adrenal action is common and constant enough in all of us, especially when we get, as we say, "hot under the collar" (like the Angry Sheik and the Irate Policeman), why is it that we do not more often have these interesting illusions and their accompanying phantasies? The reason is that we are seldom quite in the condition to observe their undiluted operation, as the dreamers were, under the conditions related. For it is an enabling condition of levitation and such-like dreams that the adrenal-sympathetic action should present its results to us during just the right stage of observation. The Kinesthetic Repose fulfills this condition; and it is, in turn, characteristically associated with the mid-state of attention, or the *somnium*, the natural transition from sleeping to waking. These states, especially if perfected to the point approximating the Kinesthetic Revelation, yield that "silence of sense" in which normally unperceived things stand out loudly. Then the way is made open for the fanciful apperceptions that create those subtle appearances of something "alien to mortality," and all those more positive illusions like the Flying Dream or the Levitation Sense, which—however alien to mortality—are still "the visions of healthful sleep and at a good distance from the grave."

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## SUMMARY

The mental aspects, however trivial, of the illusion of levitation as it may occur in sleep or even outside of sleep, are taken up in detail. These features are listed after the fashion of Bertillonage, as a sort of "detective" investigation. This is a hark-back to the method preconized originally by Aristotle:—the object is to use the fanciful ideas supplied by the mental aspect, as a means of trailing the phenomena (levitation dream or illusion) back to corresponding physiological mechanisms operating within the subject himself.

A significant fact comes in for attention: the illusion of levitation is encountered in conjunction with the Dream of Falling on the one hand, and on the other, with the Dream of Insufficient Clothing. It is intimated that all three may have something in common—as to their physiological provocation. The search for an experimental demonstration is described.

Next, consideration is given to the psycho-physical condition that accompanies the kind of sleep wherein the illusion of levitation is most commonly experienced.

To form a chain of evidences, the characteristic mental stigmata of levitation are described, beginning with a therapeutic experience in trance reported by Professor Munsterberg, passing to Edgar Allan Poe's experiences with "psychal fancies" (here called kinesthetic revelation) and continuing with experimental observations of sporadic dreams, and relaxation tests from the laboratory. The mechanism underlying the Flying Dream and the levitation illusion is attributed, mainly, to the functions of the adrenal-sympathetic nervous system. These functions, while appearing as the basis for the idle illusion here in question, are considered to be purposive quite as often as fortuitous: i. e. they are oriented toward the prevention of (a) chill (b) asphyxia (c) fatigue.

The broncho-dilator functions of adrenin are invoked to explain the respiratory phenomena involved in the levitation illusion (legend under picture).

What little remains of the sexual interpretation of such dreams, we may leave for the disciples of Freud to gather.

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# THE MORAL CONFLICT AND THE RELATION OF THE PSYCHOLOGICAL TYPES TO THE FUNCTIONAL NEUROSES<sup>1</sup>

BY BEATRICE M. HINCKLE, M. D.

**W**HEN Dr. Jung, of Zurich, and those of the psycho-analytic school in general, embodied the results of their investigations upon the neuroses in the statement that a psychic conflict is the cause of every neurosis—although every conflict does not produce a neurosis—a definite bridge was built connecting the physical organism and the disturbances due primarily to the flesh, with the so-called psychical realm—the realm of the soul.

It is only a few years ago that when anyone spoke of a moral conflict, the mind instantly reverted to some theological matter—a subject for the priest but certainly not for the physician. This is not surprising when we remember that the whole advance of medicine has been a steady pre-emption of the realms of mysticism and magic—a dragging of the occult into the daylight of the laboratory and operating room. Historically, it is not so long ago when all healing was a magic art, not a science, and when all therapy was in the hands of medicine men, priests, oracles and old women. The invasion of science into this field was a bold and daring task, the innovators, the experimenters, like Galileo, were considered sacrilegious, and so strongly was the church intrenched that science until our day contented itself with the body and considered that the soul must be left to religion. This split is a result of that ancient dualism which divided man into two parts, the material and the spiritual. Science must not meddle with the spiritual, its realm was the physical organism.

Today, however, we know that the human being cannot be halved in this simple and superstitious fashion. He is a complex aggregate—a psycho-physical unit—and to gain a real understanding of the human being science must deal with the entire man.

Indeed, it has been the advance of science itself which necessitated this enlargement of the field of the physician, for through the growth of science the religious beliefs and the practices of magic have been largely disintegrated. A deep human need was thus left without any

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<sup>1</sup>Read before the Canadian Medical Association at Hamilton, Ont., May 31, 1918.



adequate means of help, and there sprang up divers kinds of pseudo-religious-scientific attempts to meet it. The existence of Christian Science, New Thought, and allied cults all basing their claim for practical recognition on their ability to cure disease, are convincing proof of the widespread need of humanity.

There has been and still is so much confusion among the regular psychologists themselves as to the respective claims of subjective and objective phenomena and the modes of inquiry and study and the physiological interpretation of the mental states, that when a rank outsider like Freudian psychology, taking no account of either the regular school psychologists or the physiologists, intrudes itself into this confusion it is natural that it should be regarded as a common enemy and be attacked by both parties.

Pursuing a purely psychological path for a definite end, the understanding of the significance of human behavior for therapeutic purposes, psycho-analysis has no quarrel or dispute with physiological psychology. "Mental and physical activity are two inseparable aspects of a definite series of events and for a complete understanding of the organism need to be studied equally."

Dearborn makes the definite statement that "experimental physiology and even one's own personal experience prove that the nutritional and sympathetic influences from viscera affect the general sense of well being markedly and there seems little doubt that the different autonomic nerve-currents play a considerable part in the origin of moods and passions—indeed with all the basic affective themes that underlie consciousness and behavior;" but this does not preclude the psycho-analytic concept that impulses and instincts in conflict with ethical ideals produce symptoms and interferences with adequate adaptation to the demands of life.

Sherrington and Cannon, however, do not claim a priority for the visceral influences. Indeed, the former states that "we are forced back towards the likelihood that the visceral expression of emotion is secondary to the cerebral action occurring with the psychical state."

Dr. Cannon has directed much effort toward an attempt to differentiate emotions on the basis of their visceral components, but only gives a negative answer so far because in his experiments he found the viscera "implicated in ways which are similar even when the emotions provoked are presumably quite divergent."

The chief question at issue seems to be, stated in general terms, whether there is an independent psychic state which precedes its physio-

logical expression. The burden of determination would seem to lie upon those who take a negative position, for those who attribute a large part to the ideational element in the production of feeling and emotion and thus to behavior, have much work in this realm alone and certainly a large contribution for the immediate benefit of the individual.

Mind can be called a complex function, the dominant of the human organism, effected equally by physical processes alone and by ideational stimuli. Freudian psychology deals entirely with the ideational aspect, the effect of ideas and concepts upon the instinctive and primitive desires of the organism and has no wish to dispute or deny the effect of physiological processes upon the psyche.

The real aim of man is to gain satisfaction for his ego on the one hand and for his love instinct on the other, and it is the thwarting or non-fulfilment of these desires, in constant conflict with his environment and his moral development, that is the cause of a large portion of his sickness and misery.

The conception of the moral conflict in man or the "struggle against temptation," as religion expresses it, is as old as man's thought and to state its existence expresses nothing new. But to discover, and stand ready to prove both empirically and theoretically, that certain disorders of the human organism are but products of this conflict within the personality, the visible and outward manifestation of the struggle within, and lifted out of the religious and mystical setting can be understood and dealt with by a definite psychologic procedure as surely as we can deal with organic disease, is an achievement worthy of the utmost consideration. Thus finally through the efforts of the physician Sigmund Freud and his followers, the science of medicine takes once and for all into its scope the entire human organism.

In view of the great literature dealing with Freudian psychology, it is quite unnecessary to do more than make the brief references to Freud's conception which the development of my theme demands. There is also accessible for study and comparison a quite complete exposition in English of the work of his former pupils Adler and Jung, who are now both working independently.

The great contribution of Freud is the technic of psycho-analysis; contained within this technic are the theories of repression and resistance, the transference mechanism, the infantile sexuality and the interpretation of dreams as a direct approach into the Unconscious wherein lies the real origin of the conflict. This work of Freud led

him into his conception of the sexual etiology of the neurosis, for while he states that he does not ignore the fact that the ego also has claims, still his entire emphasis is placed on the sexual irregularities or inhibitions which are invariably found in every case. As is well known, the great opposition to Freud's theories was caused by this sexual conception and by his symbolic dream interpretation which was subjected to the criticism of being arbitrary and forced. But it must be remembered that Freud did not give these symbols to dreams arbitrarily, but worked them out from the free association of the dreamer in connection with folk symbology universally expressed in religions and myths.

Alfred Adler, one of Freud's original pupils, was the first secessionist from the teachings of his master. Freud's theory made the sexual strivings the central motif of the life and their non-fulfilment the cause of all the neuroses. He has no special interest in the strivings of the ego stating that psycho-analysis had a greater interest in showing that all ego strivings are admixed with libidinous feeling components. Adler's theory on the contrary emphasizes the other side, namely, that all libidinous feeling contains an admixture of egotism, and then places the emphasis in favor of the ego component instead of the sexual. Thus, although Adler concedes that the psychological conflict is the basis of the neurosis and uses the same technic including dream analysis, uncovering the same material, he makes a different interpretation, claiming that the assertion of the ego is the major factor.

The Adlerian central theme is the "will-to-power" in the form of the "masculine protest" which manifests itself domineeringly in the conduct of life, in character formation, and in the neuroses. He has attempted to work out his theory on the hypothesis of the weakness or physical inferiority of certain organs of the body which the organism in toto is making a continuous effort to over-compensate both through physical and psychic mechanism—the sense of psychic inferiority caused by this is being continuously opposed by a definite struggle for superiority. This striving for superiority which Adler sees as the main motive for the life as well as for the neuroses he calls the "will-to-power," deriving the term from Nietzsche whose whole philosophy is based on the theory that the major motivation of life lies in the desire or instinct for power. Man desires to be a superman: in that lies the secret of all his painful effort, his arduous adaptation, his progress from the animal up.

Carl Jung of Zurich, also one of the early pupils of Freud, made his first open defection in 1912 when he took exception to Freud's wholly sexual theory and introduced some modifications in the same. Unlike Adler he does not throw out the sexual or love motif, but sees it as one of the important factors in the etiology of the neuroses, which must be given its place, but does not consider it the exclusive cause of the conflicts of life.

The development of his libido theory in which he gives an entirely different meaning to the concept than does Freud is the attempt to express his empirical findings theoretically. Instead of using libido to mean merely sexual hunger or strivings, he conceives this libido as a hypothetical energy of life analogous to the conception of energy in physics and which can be studied only through its manifestations, but cannot be described. It first appears in the act of suckling and nutrition and is occupied in the growth of the child and in the development of its various functions which are successively awakened,—one of these being the sexual function. In the beginning it is largely undifferentiated but later becomes differentiated. It is the proper and normal application of this libido either instinctively achieved or consciously acquired through psychoanalytic education that constitutes a healthy psychical state. Besides this, although the fact of infantile sexuality is accepted, instead of this factor being the cause per se of all the neuroses, Jung sees this infantile sexuality itself as one of the symptoms of the immature and only partially developed personality. In other words, the development of man's personality is looked upon as being due to factors other than the sole one of his sexual organism, although this plays a large part, much larger than is generally supposed.

Perhaps Dr. Jung's most important contribution for the understanding of human personality, however, is the differentiation and study of the psychologic types. The advantage of the classification of mankind into distinct psychologic types whose reactions to stimuli are different and distinct and can fairly adequately be postulated in advance is as valuable for the medical psychologist as is Dr. Joel Goldthwaite's anatomical and physiological classification for the internist.

To be sure, William James referred to two distinct mental types when he spoke of the tough-minded and tender-minded persons, and the age-old disputes between various schools of romanticists and classicists all dealt with the same problem, but until the present time

the importance of thoroughly recognizing these types and their distinctive reactions has never been properly understood, for in no other way as yet devised can any real understanding of human personality be gained.

Jung deals for the time being with the two very distinct and definite types which are most easily recognized and are everywhere in evidence, and these he calls the extraverted and the introverted. He does not deny that there are probably other types not yet clearly defined, and from my own rather large experience I am inclined to believe that these are only variations of these two main types. These can be conceived of as being at opposite poles—and between them the less pronounced individuals who lean, however, definitely on the one or the other side, until the middle is reached, when the mixed types appear. These types partake of the nature of both introvert and extravert, those having the accent on the introverted mechanism being called by me Emotional Introverts and generally including the essential neurotics and unstable individuals as well as the most gifted—artists generally belonging in this group. Those with the accent on the feeling function I term Intellectual Extraverts and these include the best adapted and most stable individuals.

The two main types are characterized by absolutely opposite reactions and are in marked contrast to each other. The one called by Jung extravert is chiefly recognized by his responding to stimuli with feeling and action. He feels his way as it were into the situation and identifies himself with the object so that the ego and the object become one. This is the so-called "man of action." His thought function is ordinarily less developed and is inferior to his feeling which is frequently so finely differentiated as to enable him to handle difficult situations and meet practical problems of life in a highly successful way and this often passes for intellectual acumen. He is frequently referred to as the person who acts first and thinks afterwards.

Exactly contrary is the reaction of the introvert. He reacts to stimuli by thinking and tends to withdraw from the object to think it over and weigh matters. For him action is difficult, uncertain, and delayed. He cannot make an immediate and direct contact with the object because between his feeling and the object is the ego. An extreme example of this type is Hamlet "all sicklied o'er with the pale cast of thought." He broods, meditates and is often moody.

If the introvert has had an intellectual training and development he substitutes for his difficulty in action and quick adjustment to the

changing conditions of life, the creation of theories, philosophies and logical reasoning about things and seeks to adapt himself mentally—his trouble comes in putting these ideas into practical application. This does not mean that he is without feeling. Indeed, he may have the strongest feelings—one class of introvert is often called the emotional type—but his feeling is undifferentiated and he reveals an inadequate emotional reaction and valuation. His emotions when aroused frequently show an undeveloped character, so that it is not surprising to find highly cultivated introverts acting in a childish and infantile manner when their feelings are touched, with deep moods of depression and a tendency towards infantile sexual manifestations.

The introvert is also affected by a feeling of inferiority which is often so unbearable that there is developed a mechanism which is constantly striving to overcome this by an over-accentuation of the ego—the power system—Adler's masculine protest.

The extravert, however, has not these same difficulties. Our modern world, with its accent on action and results, was made for him. He responds to stimuli, to people and events, with finely differentiated feeling and is more or less at home in the tumult and struggle of the world. He is pre-eminently the natural fighting man. His difficulty, however, lies in his thinking—when this is required of him instead of action, it is disclosed as of an undeveloped character—conventional and collective in type.

There are two individuals prominent in American public life who represent these types most perfectly and they may serve to make this subject clearer. These are President Wilson and ex-President Roosevelt. Roosevelt is obviously the extravert of rather an extreme type—highly successful in action with responsive feelings and a keen sense of events and situations—a man who can pick men—a man who makes warm friends and strong enemies, and who sways people by his emotional appeal. However, if his thought is examined, it will be found to follow action rather than precede it. It is conventional and lacking in originality, is usually made over from the ideas and thoughts of others, and he can quickly reverse himself when the occasion demands. President Wilson on the other hand is an introvert. He is a student and thinker, slow to action, with a policy called watchful waiting; that is, of thinking well over a matter before acting—of trying to understand all the causes and processes of problems. He can construct a political philosophy, or build up a religious international vision of the world. He refers to himself as having a single track mind, mean-

ing that having once thought out a path of action he must unswervingly follow it no matter what new situation may arise demanding a reversal or quick adaptation. His weakness lies in the realm of feeling and action. He has often, it would seem, been mistaken in his judgment of men, and in the field of action his retardation has frequently brought forth criticism from his most ardent admirers.

In another way, one may say briefly that the extravert puts the accent on the object and the introvert on the ego or subject. The extravert feels out and acts. He is the opportunist, feeling his way and acting according to the demand of the moment. The introvert thinks in and about as it were, able to act effectively only after a fully worked out line of procedure in which the subject is first and the object second. This is the reason that it is so much more difficult to treat the neurosis in the introvert than the extravert. He attaches himself to the object in order to assist and enhance the ego or subject and can only with great difficulty relinquish his hold once made, instead of adapting himself to the object with the ability quickly to change and make a new identification when the need arises.

It is in dealing with the neuroses of the introvert that one realizes the very great part played by the ego-dominant, the "will-to-power," and that recognition must be given to this component in any adequate analytic therapy.

It is through this recognition of types that Jung was enabled to reconcile the very opposite conceptions of Freud and Adler. Freud's sexual theory applies more particularly to the extravert and Adler's power theory to the introvert. To be sure this in no wise means that sexuality is not everywhere to be found and must adequately be met, but simply that the emphasis in one type is on the ego and in the other on the sexual.

The introvert can far more successfully repress his sexuality and be freer of its claims in consciousness than the extravert and instead of struggling with the sexual problem as the central theme, his struggle is with the feeling of inferiority, which is an almost constant accompaniment of this type, and with his over sensitiveness, which is concomitant with the intense ego demand. The important factor in the recognition of these psychological types is to realize that they can never under normal conditions be changed to the opposite types any more than can the physiological types be altered. Therefore, admonitions and advice to do or be otherwise is futile and this explains why in the psycho-neuroses a given line of treatment is successful with one patient

and fails utterly with another. The individuals are unable to respond except according to their own mechanism.

It is therefore most necessary that in the reductive process of analytic treatment an important place be given to the ego strivings as well as to the sexual components of the personality and that the formula or psychic mechanism of the individual be thoroughly grasped. For there is a very definite unconscious mechanism governing the type of reaction and behavior of the individual and to make this conscious is the first step in aiding him to find a more satisfactory mode than the primitive and instinctive one which governs him.

The moral conflict which so frequently lies beneath the neuroses, to be understood and met adequately, must be considered in relation to the type of individual and his particular mechanisms, for in no other way can his personal problem be satisfactorily solved. I shall attempt to elucidate this statement by citing two cases suffering from similar symptoms but presenting a very different history and mechanism.

Both came under observation because of what is called a nervous breakdown. The usual aggregation of symptoms is well known—fatigue, loss of weight and appetite, inability to concentrate on ordinary duties, insomnia, gastric disturbances, tremor, depression, loss of self-confidence, marked emotionalism and a general sense of weakness and failure. Both patients had been treated along physiological lines and sent away to recuperate for several months. Both returned complaining that they were not improved and presented themselves for analytic treatment.

Following is the history of Mr. B.:

Mr. B.

Age—34.

Analytic Chemist.

Married ten years.

Three children, all healthy.

Referred by a New York neurologist, who had been treating him for several months.

Commenced treatment March 29, 1916.

Patient complains of inefficiency to a marked degree; lack of confidence in self; inability to make good in his work; sense of fear and impending doom constantly over him so that he is unable to work properly or handle any matters in his profession that require responsibility and judgment. Can do better if he is directed by someone else which lessens his own responsibility.

This condition in a mild form has been present practically all his life; but during the past year he had a severe increase of all symptoms and what he calls "a nervous breakdown." This was induced by the assumption of new relations



and business environment and the forming of a partnership with new people which, while it much bettered his previous situation, was attended with responsibilities of a more difficult character. Almost immediately he commenced to doubt his own ability and feel that he was inadequate to what he was attempting, that his partners were dissatisfied with him, and that he could not make good; that it would be only a question of time when it would be necessary for him to give it all up, and that would be the end of himself professionally. He explains that he sits before a book, or case to be studied, feeling himself petrified, inert. He is constantly depressed and gloomy, has marked gastric disturbances, and feels unable actively to meet life.

**Past History:** As a boy, patient was his mother's favorite; had one sister, four years younger, and one four years older. Father absent from home much of the time. Remembers at a very early age (three or four years old) the feeling of fear, jealousy and dislike towards the father. On his frequent visits home he was jealous of being put away from the mother with whom he usually slept while the father was absent.

Remembers his shyness and great diffidence as a small child. Found it difficult to meet and mingle with other children of his own age. Had a violent temper during which time his desire was to smash things generally. Went to school and was quite bright. Learned rapidly and easily stood at the head of his classes. When about ten years old moved to new environment and new school. His recollections here are very unhappy because of the hazing and rough treatment of the other boys, to which it was difficult for him to adapt. However, after a time he managed better and later went to a public school, where a different class of boys, rather beneath him socially and of simpler lives, attended. Here he was able to get on very well and enter into the games and relations with all the other boys in quite a normal way. His work went on well and at sixteen he was ready for college. He always found much difficulty when his family desired him to associate with wealthy boys or boys of a social class equal to his own. There he was uncomfortable and unhappy.

Sexually he had practically no knowledge and no experience and cannot remember very much regarding this subject. Thought very little about things in general and did very little speculation. He had a slight experience with another little boy of his own age when he was about seven, which made very little impression upon him. Commenced to masturbate about twelve years of age. Found this out for himself. Never discussed the subject but once with another boy in an indirect way which was the first intimation that he had that any other boy could be as "bad" as he or do what he did. This conduct was entirely solitary, he spoke to no one, and he appears to have had no intercourse with other boys on sexual matters whatsoever. Had no idea regarding the relation of the sexes or birth until after sixteen years of age, perhaps older. Then things just gradually came piecemeal to him. First leaving of home when he went to college—between sixteen and seventeen. Here he had a very difficult time. Was very unhappy, unable to adjust to the boys, and felt himself entirely alone. Was always able to get on with girls very much better than boys, and from the age of fourteen always had some girl companion, although in none of these affairs was there any sexual activity. He seems to have been singularly unthinking and unquestioning with very little knowledge or contact intimately with other boys, or any understanding of what went on in the minds of others. His father affected him only as a superior person who was in control of him and whom he had to obey. His love was given to his mother. Neither parent ever talked to him about any intimate matters at any time that he remembers.

His marriage occurred at 24 years, and the initiative was taken by the wife, who planned and carried through the entire affair. He was passively happy in the beginning of the engagement but as the time for marriage approached he became increasingly anxious and panic-stricken, his anguish at last resulting in a confession to his fiancé of his own unworthiness and sinfulness because of his habit of masturbation which he felt was the cause of all his weakness and inferiority. This confession while it relieved him somewhat, in that now he had no secret burden of guilt to carry, did not in any way make the prospect of the new adaptation and its responsibilities any easier to accept and it was only because of the girl's confident and capable personality that the marriage was carried through.

As might have been expected from the previous history, his sexual life was inadequate and unsatisfactory and gradually through the years the domestic situation became increasingly difficult. Whenever any new responsibility arose or new adaptation was required he invariably reacted in the same inadequate and painful way as previously, usually talking suicide as the only way out for him. He was painfully conscious of his weakness and cowardice as he called it, but was powerless to remedy it. As a consequence of the unsatisfied love life of his wife, and the continuous strain of the entire responsibility of the home, children and husband, the wife became irritable and disgusted and a separation lasting a year and a half occurred. This partial freedom for the wife helped her regain her poise and they resumed their married relations. The husband was not in the least improved by this separation, however, and in a few months the same situation was present as before. This continued until about three years before he came under my care, when the wife suffered a nervous breakdown of a rather severe character and had again to leave home. This was the situation with alternating periods of improvement and relapse until the present complete collapse occurred nine months previously as related.

During practically the entire period of his marriage he had been under the care of various specialists for the numerous symptoms from which he suffered and for which he was trying to find relief in physiological therapy.

#### His own statement of himself reads thus:

"My mental or physical general characteristics are timidity, sense of inferiority, lack of self-confidence, and mental deadlock, by which I mean this: when I am confronted with a piece of work requiring initiative and resolution I feel unable to concentrate and get into the problem at all. There seems to be a perfect insulation between my mind and the job. I feel like an invalid watching life go by and under a compelling necessity of joining in it and yet unable to stir. The result is quickly a feeling of impotence in which I fumble helplessly with the problem, while time passes. I feel despicable, lazy, and yet unable to wake up and brush aside the simplest obstacles. Trying to work in this way I miss the most obvious considerations. There grows during this period of deadlock a most painful feeling of despair and loneliness often suggesting thoughts of suicide as a means of escape from the mental pain and from the contempt of others which must result from not doing the job. This leads to a most acute self-consciousness, to thinking that other people are talking about me, that office boys and stenographers are disdainful, that partners are disgusted, friends disappointed, etc.

"So if I have to discuss scientific points with others, because of the obstacles between my mind and the object (or inability to keep the attention fixed on the object) I lose the thread soon and then get a sinking feeling of dread and dismay

so that my thoughts do not reach the object or come freely; they seem to be my ego—an absorption in myself and what is going to happen to me. In fact I find it impossible to give attention to the job or the discussion because of the feeling that something is impending—an apprehension as to myself that shoves away any other interest. If I get some little job without much responsibility, especially if it involves physical action and shows some result immediately, I have a feeling of delicious liberation. This condition is very acute with respect to my professional work; I have this feeling of dread and dismay to a considerable extent on waking up in the morning."

In this picture we will immediately recognize the introverted mechanism and also see the condition spoken of so commonly as a break down from overwork, or an attempt to handle a proposition too large for one, etc. That this is true only because the major part of the energy (libido) was repressed and occupied in his psychic conflict, thus leaving only a minor portion to be applied constructively, I shall endeavor to show.

This man's whole life was spent under the shadow of the dominating personality of the father and from every situation in which it is incumbent upon him to act, responsibly, and adult, he recoils and acts the part of inferior child. He cannot put himself on a plane of equality with the father and all things which demand an adult attitude or aggressive handling are identified with the father. His partners before whom he shrank and whom he imagined were critical and dissatisfied with him, were really only surrogates for the father. He remains fixed in this childish bond to the mother and this inability adequately to manage the demands upon him produced a great conflict between the unconscious childish attitude and the conscious ego. He often expressed his feeling as similar to that of a man in chains struggling futilely and wildly to free himself and falling down exhausted.

The father in the patient's childhood stood for stern reality, a symbol of what he himself must attain, a dominating power who would separate him from the mother to whom he must cling fast, and therefore an enemy whom he feared and hated. This is called the incest problem by Freud, but Jung sees this condition of infantile continuity with the mother, the primary union which has never fully been dissolved into subject and object, as the actual cause of the inability to meet life adequately and as the cause of the repression and inhibition of the sexual impulse. Instead of the regressive longing backward, which renders adaption so difficult, being the objective incestuous desire for the mother it is the longing for the state of infancy when the

child was enfolded, protected and loved and had no necessity for activity on his part to obtain his satisfactions. This is the condition which the neurotic introvert can never completely renounce and in the case just presented the entire life reveals the wish to remain in the passive state. When confronted with the necessity of new adaptation or responsibility there was repeated the same mechanism of revolt, resistance, and paralysis as overcame the child in the presence of his father. All introverts have in common the feeling of inferiority, certain feminine or masculine characteristics, inverted according to the sex, auto-erotism, latent homo-sexual tendencies, frequently unconscious, and a marked desire to be loved as the child, or its opposite, to give love as a parent and at the same time exercise power and authority.

These latter attitudes are frequently combined in the same person who then alternates continuously between the child or inferior and parent or superior roles, and whose life is a constant struggle and revolt against the inferior child attitude, with the replacement of this by the superior, egotistic attitude. This soon breaks down and the childish attitude reappears only to be again overcome, and this mechanism is the affective influence dominating the life. My patients often describe the feeling in homely language, as a painful sense of being under, with a strong desire to be over or on top. It is this feeling that Adler designates the masculine protest, or will-to-power and to account for which he offers the theory of organ inferiority. All that is possible to say about this attempted physiological explanation of the phenomenon of inferiority is that the evidence presented is far from conclusive and no further corroboration has been offered. Jung moving wholly in the realm of psychology postulates the condition as the persistence of a psychic continuity of the child with the mother, the primary object to which the child is actually attached physiologically through the umbilical cord as well as through his complete physical dependence upon the mother during the early years. This primary attachment is never severed psychically and the persistence of the infantile attitude creates a feeling of inferiority. In other words the original set of the organism creates a pattern which is never relinquished by the individual in his later adjustments.

In great contrast to this case of an introvert is the case of Mrs. C., an extravert. This lady, aged forty years, was a most capable personality. She had successfully managed a large enterprise, had supported and cared for two children, and had well adapted to the

demands and responsibilities of life. Yet she now presents the same group of symptoms as the first case, with the exception that these feelings of inadequacy and helplessness are all new and unfamiliar phenomena with which the individual had no previous acquaintance, whereas in the first case the symptom complex was but an exaggeration of that which had been more or less in evidence during the entire life. One case presents that of the actual neurotic and the other that of the acquired neurosis. The history reveals the following:

Mrs. C.

Age—40.

Twice married.

Three children, one dead.

First husband died after seven years of rather unhappy marriage, before which time a partial separation occurred, because of the husband's ungovernable temper. She adds that she ceased to love him after a few years because his ideals and standards were much different than those in which she had been trained.

After this she went back to her father's house taking her children and soon learned to put her energies to work and forget her unhappy marriage.

*Past History.* As a child patient was bright and happy, full of ambition. Never had any illness. Was one of six children, all of whom are living and well. Father and mother both alive and well. She speaks somewhat enthusiastically about the father being a superior man, intellectually very able, and whom she admired very much. Her mother she refers to as a much lesser person. Questioned as to whether she was her father's favorite, she rather unwillingly states that this had been her great ambition as a child. That she had spent endless effort in trying to please him, to attract his attention to her, to adapt herself to his tastes as she imagined them, but he really treated her unkindly, hardly ever giving her even the ordinary meed of praise when she excelled in her school tasks or performed some particularly considerate act or effort to please him. In this discussion she showed considerable emotion, wept as she spoke of the father, and his unkindnesses to her, and in considerable detail told of the misery the entire family had suffered through him, how her mother had supported them all and the father had lived in idleness, exercising a domination over them by virtue of his bad temper, self-important attitude and superior manner. After relating many incidents which revealed the father as an overbearing lazy egoist, a very inferior character of the introverted type, I asked the lady how she could reconcile these attitudes and characteristics with her statement made in the beginning, that her father was a remarkable and superior person. She was much disturbed at this question and admitted that she couldn't understand it herself, that she was very unhappy over it, and had spent much time puzzling over these contradictory ideas.

The father became increasingly difficult and finally he was made to leave home and the family under pretext of his health, and live in a distant state.

When the patient was sixteen years old, she met a man much older than herself who seemed to her quite superior, evidently an introvert, and who from the description she gave seemed to possess many of the characteristics she mentioned as belonging to her father. This man she adored, and although he only gave

her scant consideration, that was enough to hold her devotion for six years, when he finally married her. She had three children within five years but the births were normal and nothing special marked her physical life. This marriage was not a great success on account of her husband losing caste in her eyes through his various weaknesses, and the gradual change of her love to active antagonism, which finally ended with his death as a happy solution.

She remained a widow for five years when she again married, this time a man slightly younger than herself—also an introverted personality, although this time of a very quiet, unemotional and passive type. She had known this man for several years; he had been devoted to her since her husband's death, and the marriage was a "natural thing."

However, in a very few months, she realized that there was something wrong here. He was exaggeratedly sensitive, would pass into moods of depression over apparent nothings, was not able to show her any warmth of affection and seemed afraid of any show of feeling on her part. As can be anticipated, he was not very virile and was sexually unsatisfactory. All this reacted upon her, causing her to throw herself into her work more intensely because there she could forget her great disappointment over this second marital failure and cease to criticize herself for the mess, as she called it, of her life.

Two years previously, she had what was called a partial nervous prostration, but was helped by changed environment and the usual tonic treatment. The condition of her life remained the same, however, and she had gained no insight into the dominant power affecting her; therefore two years later she suffered a very serious collapse, and it was this breakdown that brought her under my care.

This history at once reveals to those familiar with the Freudian psychology the typical Electra or so-called Father Complex and is the kind of case which forced Freud to develop his sexual theory of the neuroses.

This lady was not a neurotic personality, but a mature, capable person in her dealings with the outer world and she was able to postpone the development of her neurosis many years because she was able to lose herself in the object occupying her, and by her energetic activities forget the personal needs. She gained ego satisfaction through her achievements and business success, and it was the only too intense application of libido to this object and her unsatisfied libido sexualis which precipitated the breakdown. The fixation on the father in this case was so strong that she had never been able to relinquish her longing for him and desire to win him. To this end it was found that many characteristics and traits which she exhibited and which seemed incongruous with her type of personality were only assumed, taken over from her father in her efforts from childhood to please him. Her great efforts for success really had the motive of forcing her father to be proud of her and to gain superiority in order to meet him. Her two marriages represented her efforts to free herself from the father but were futile because she only chose men who were surrogates

for the father and had many traits similar and equally difficult to deal with, or gain any satisfaction from. The love life was unfulfilled and a continuous disappointment, for she had never relinquished her primary wish to be the wife of the father. This wish had guided her in the choice of both husbands, and had affected her conduct with them so that instead of acting the same adult role that she was able to exhibit in the face of the real world she fell back into the same over-anxious childish attitude she had displayed to the father. When she recognized the nature of her desire for the father, the unconscious incestuous wish and the consequent inability to act fully mature in the love relation because of the repression of sexuality before the incest barrier, the real release from the compulsion could be effected and a rounding out of her personality be achieved. It is certain she will never again suffer from a nervous breakdown.

The contrast between these two types of personality and the differences in mechanism are very definite and clearly illustrate both the ego inferiority and the sexual basis of the neuroses.

The moral conflict in the case of the lady was more definitely repressed than in the first case where the weaknesses and shortcomings so out of accord with the patient's ideals of what constituted manly conduct, were painfully realized. In such a case it is necessary to ease the pain and depression caused by the conflict by using the analytic understanding of the condition to lessen the burden of the personality.

To find that he is understood and not scorned is a tremendous relief to the introverted patient and is the first step towards the rehabilitation of the personality.

An opposite situation is found in the extraverted type as a rule and is clearly shown in the case of Mrs. C. She has no idea that the cause of her sickness lies in her own soul. It is because she has worked too hard, her husband had failed her; in other words, the external conditions of life are the cause of her trouble. The moral conflict in this instance is repressed and the patient has no idea of the nature of the wishes which play the part of fate in the life.

One has to proceed very carefully in such a case to reveal the unsuspected weaknesses and desires so contrary to the conscious thoughts and ethics of the personality that only with difficulty and pain can they be released from the repression. The resistance to be overcome in these cases is usually very great for the whole life has proceeded on the mechanism of forgetting the unpleasant and living in action rather than thought.

I do not mean to infer here that the mechanism of repression and resistance are not equally active in the introvert but, as he is usually more of the thinker than the doer, he develops what is called the logic tight compartment type of mind in which the complex is rigidly separated from the rest of the personality and proceeds on its independent way manifesting itself in the inadequate conduct and action which is so at variance with the theories and mental claims of the individual.

Indeed, we have had an example of a nation whose conduct can only be understood if we apply the technic of analytic psychology. Germany is an introvert, and it is comparatively a short time ago when one of her own greatest statesmen spoke of her scornfully as a nation of philosophers, dreamers and poets. Now in a brief space of time the rest of the world stands aghast at her conduct unable to understand her except as a deliberate hypocrite and outside the pale of humanity. She is equally unable to understand the other nations, and dazed by the scorned and hatred she has evoked, she regards them as merely leagued together to destroy her. She is unable to understand that her conduct is different from the rest whom she sees equally interested in the practical aims of life; she only thinks she is more thorough and efficient. This she certainly is, but she has no understanding that man does not live by logic alone and that even though the aims or purposes may be similar, the important factor is the means by which the purposes are achieved, and that the ignoring and ruthless disregard of all those humanities which mankind has so painfully acquired cannot be tolerated.

It is a very significant fact that although analytic psychology and its development arose from the German mind, it is Germany who has opposed its teachings most violently and where it has had its hardest struggle for recognition. To accept and understand the revelations of this work would mean that Germany would be self-revealed—her marked inferiority complex be exposed to view and the mechanisms by which she has attempted to overcome it become clear. Too much painful struggle and effort has been put into this achievement to allow this and therefore the mechanisms of repression and resistance are shown operating in their intensest form.



## THE VALUE OF PSYCHOLOGICAL TESTS IN PSYCHIATRIC DIAGNOSES

BY FRANK S. FEARING<sup>1</sup>

**T**HE principal concern of the Psychologist in the field of mental measurement has been the examination and diagnosis of cases of congenital Amentia. The various scales for the determination in intellectual status have been used chiefly in testing for feeble-mindedness.

This restriction of the tests to a limited field has served to over-emphasize the purely *quantitative* side of mental cases while the usefulness of the tests on the *qualitative* side has been ignored. Not only has the qualitative performance in cases of feeble-mindedness been neglected, but the performance of the various types of mental cases such as the Epilepsies, the Psychoses and the Neuroses have received practically no attention.

Apparently the Psychologist interested in mental tests has felt that his tests had no value aside from determining the intellectual status of a suspected Ament. However, such limitation has made possible grave diagnostic errors, but it may be explained by the fact that many of the mental testers have had little or no training in purely psychiatric cases. For instance, what is the qualitative difference of the performance on a standard intelligence scale between a case of Epilepsy with mental deterioration and a case of definite Amentia? In answer it might be said that the epileptic convulsions would eliminate the possibility of error in diagnosis, and therefore the testing of epileptics would be superfluous. This scarcely is an adequate answer, though, since the modern psychiatrist can sometimes make a diagnosis of Epilepsy without there being a history of Grand Mal attacks. On the other hand, the mental peculiarities of an epileptic can be discovered by his performance on intelligence scales that are valid, and surely such added knowledge is of concrete value. The same is true of some of the Psychoses, for example, the blocking of thought process can be noted in performances of Dementia Praecox cases. Again, Constitutional Inferiority and Constitutional Psycho-

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pathic State are valid psychiatric diagnoses. What part in the clinical picture of these cases do the tests play?

From the viewpoint of the preceding paragraph it will be seen that test-performances assume a new position. Instead of being the final determinant in a diagnosis, they become merely a part of the clinical picture of the case. This, it would seem, is their true position especially if the *interpretative* aspect is emphasized. The present tendency to overemphasize final scores made on tests without giving due weight to the medical history and physical examination of the case is removed. The field of usefulness of clinical psychology is thereby enlarged and an opportunity of coöperation between the Psychiatrist and Clinical Psychologist is afforded.

It will be the purpose of this paper to present this viewpoint and to accompany it by selected cases which have seemed typical. The cases presented are of Naval Recruits and men in training at the Fifth Naval District at Hampton Roads, Va., and were selected from the files of the Psychiatric Division of that district.

A word in passing may be said concerning the organization and aims of this Division. The Division was organized for the purpose of weeding out the mentally unfit from the naval service. Cases were referred to the Division from among the recruits at the U. S. Naval Training Station, from the U. S. Naval Air Station, and from the Base Hospital, all at Hampton Roads, Va. Psychological work was organized by the writer under the direction of Dr. Louis E. Bisch, Director of the Psychiatric Division.<sup>2</sup> Tests were devised which are discussed in detail in a paper by Dr. Bisch<sup>3</sup> and forms adopted for the testing of recruits upon their entry into the service in the Fifth Naval District. The cases among recruits which were tentatively identified by these tests were automatically referred to the writer for an intensive psychological examination which consisted in the main of the giving of the Stanford Revision of the Binet-Simon Intelligence Test. Inasmuch as the activities of the Division were not confined to the identification of the feeble-minded, the writer had the opportunity of examining in a routine way all types of mental cases. The clinical importance of the tests early became evident in our work in the Navy and their diagnostic value in *all* types of mental cases

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<sup>2</sup>Sincere appreciation is expressed by the writer to Dr. Bisch for the use of the files and for the encouragement and very helpful criticism from a psychiatric and medical side in the preparation of this paper.

<sup>3</sup>Bisch, Louis E.: A Routine Method of Mental Examination for Naval Recruits, U. S. Naval Medical Bulletin, Vol. 13, No. 2, pp. 198-229.

caused them to become an important feature of the psychiatric examinations.

The diagnoses under which the typical cases are presented are those used in the Navy nomenclature. It is not the purpose of this paper to discuss this classification of mental diseases. The theoretical differences between the diagnosis of Constitutional Inferiority and a diagnosis of Moronity present an interesting field of investigation, but the fact that such diagnoses are in use makes their consideration necessary to the clinical Psychologist. Only those cases are presented in which are included a Stanford Revision of the Binet-Simon Tests. The tests in the cases presented were all given by the writer under rigid experimental conditions.

On theoretical grounds it was felt that the qualitative differences in test performances would show a well-defined demarkation between functional and organic mental disease. While not a sufficient number of cases have been tabulated to confirm this supposition statistically, it has seemed in general that this differentiation would hold true. In the Naval service only the beginning stages of the various psychoses came under observation of our division. Hence it is impossible to present typical cases of all the Psychoses. Cases are presented and test performances contrasted of (1) Constitutional Inferiority (2) Constitutional Psychopathic State (3) Epilepsy (4) Amentia.<sup>4</sup>

The outstanding features observed in these cases was the fact that a diagnosis may not be made on the basis of the test score alone as has been pointed out in a previous paper by the writer.<sup>5</sup> No diagnosis of feeble-mindedness may be made without the consideration of the score on some standardized intelligence scale, yet no such diagnosis should be made on this basis alone. It was found that, in general, the essential contrast between the performance of cases of Amentia and the other cases presented lay in the irregularity of the latter. In general, it may be said that in cases of frank Imbecility there was a definite blocking at a certain mental level. That is, the range of scores of the various mental levels of the scale was limited to a relatively small area. The Constitutional Inferiors and the Constitutional Psychopaths presented an unevenness of performance, and certain "spottiness" which was not typical of the Aments. The sec-

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<sup>4</sup>Amentia and feeble-mindedness are synonymously used in this paper—both terms covering all degrees of mental deficiency.

<sup>5</sup>Fearing, Frank S.: The Clinical Value of Psychological Tests in the Examination and diagnosis of Mental Cases, Southern Medical Journal, March, 1919.

ond feature that was observed was in the qualitative difference of the two types. The feeble-minded presented certain typical characteristics in their performance of the various tests, and in their reactions to the various situations they identify themselves to the trained examiner. The unevenness of performance of the epileptics are especially noticeable; their scores usually extending over a wide range of mental levels. In the Constitutional Inferiors and Psychopaths the typical characteristics lie in the emotional reaction. In fact, it would seem justifiable to say that the essential quality that differentiates these cases is emotional inadequacy and emotional instability.

The following group of cases are presented as fairly typical of the Constitutional Inferior.<sup>6</sup> A full medical history, physical and neurological examination was a routine part of our psychiatric procedure. The medical history, of course, could not be verified.

Case No. 281—Age 21. Patient is a recruit and made a low score on preliminary psychological tests at the Receiving Unit. Family history was negative. Personal history negative.

On the Stanford Revision of the Binet-Simon Test patient measured 8 years and 6 months. The tests ranging from the VII year level to the XIV year level. The coöperation on the tests was excellent. Patient talked in a low, monotonous tone of voice, reactions were exceedingly slow, and motor movements sluggish. Throughout the examination his facial expression was unchanged and it was impossible to elicit normal emotional reactions. Patient possessed many "stigmata of degeneracy," and his expression was dull and apathetic.

Case No. 882. Case was referred to the Division by one of the regimental surgeons. Family history negative. At the age of 8 patient was sent to an Orphanage, leaving this Institution at about the age of 18. Since being in the Navy patient has been under discipline three times; once for being 3 hours overleave, once for attempted desertion, and once for stealing.

In the physical examination the following "stigmata of degeneracy" were noted; adherent lobules, irregularly set teeth; rugae of tongue. Patient presented many of the institutional traits.

On the Stanford Revision of the Binet-Simon tests he measured 10 years and 8 months. During the testing the patient was exceedingly nervous, face twitched and perspiration was observed on the forehead and palms of hands. Responses were erratic and patient become very much excited when questioned regarding his sex life. The test scores ranged from the IX year level to the XIV year level.

From the history it was apparent that the patient has little sense of responsibility and appreciation of his duties in a military organization. The emotional instability was particularly marked.

Case No. 923—Case was referred by regimental surgeon. Family history negative. About three months before the patient stated that he had sustained

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<sup>6</sup>All diagnoses on the cases presented in this paper were made by the Director of the Psychiatric Division, Dr. Louis E. Bisch.

a fracture of the skull and that ever since he has been subject to "dizzy spells." These spells come on especially when he becomes overheated, lowers his head, or rises suddenly from a lying or sitting position. Patient attended school 8 years reaching the fifth grade and stated that while in school he did not have the capacity to remember facts. On the Stanford Revision of the Binet-Simon Test patient measured 10 years and 11 months, the performance ranging from the VIII year level to the XVI year level. The coöperation on the tests was good, although the subject was very apathetic in manner and seemed lifeless and "washed out." The tests indicated memory and concentration defects. In appearance the patient was clean and well groomed. He possessed many well-defined "stigmata of degeneracy."

It will be noted that in the above cases the lowest mental age is 8 years and in two of the cases the mental age is above 10 years. It has been our experience that in most cases of Constitutional Inferiority the mental age rarely goes below the IX year level. The Constitutional Inferior may show no intellectual defect whatsoever, although this is an unusual condition. The important criterion in making the diagnosis of Constitutional Inferiority from the standpoint of the Psychologist lies in derangements of the emotional life of the individual. The emotional derangement is usually characterized by a marked instability or marked inadequacy. Too much importance may not be attached to the possession of the so-called "stigmata of degeneracy," but these are usually observed in cases of Constitutional Inferiority. The emotional instability has the effect on the test performance of causing an irregularity and unevenness.

Under the diagnosis of Constitutional Psychopathic State the following cases are presented:

Case No. 891—Referred by regimental surgeon. Personal and family history negative. While serving on the U. S. S. ——— the patient one morning immediately after reveille, in a dazed condition, went to the rail of the ship and jumped overboard. States that he does not know how it happened or why he did it. States that the first thing he remembers is that he was struggling in the water.

Patient gives a history of frequent dizzy spells and states that he also has "weak" spells which last for hours at a time, in which he feels restless and nervous. The patient was under observation in the Psychiatric Ward for several weeks and showed himself to be of a neuropathic type. He showed various "shut-in" characteristics, did not mix with other men and was difficult to draw into conversation. Emotional instability was marked, the patient being easily excited.

On the Stanford Revision of the Binet-Simon Test patient measured 9½ years, with a range from the VII year level to the XIV year level. During the psychological examination the patient was restless, resistive at times and seemed moody, and he sighed frequently.

Case No. 86—Patient referred from the Receiving Unit. Family history negative. Patient is a chronic masturbator and manifested various neurasthenic

symptoms. On the Stanford Revision of the Binet-Simon Test patient measured 11 years. Patient coöperated well on the tests and apparently was exceedingly anxious to make the best score possible. He was talkative, flighty and constantly offered explanations. At times he was incoherent and almost hysterical. The patient is a psychopathic type of individual and would surely develop a Psychosis under the stress and strain of military life.

Case No. 265—Referred from Receiving Unit. Family history negative except mother died of Tuberculosis and one uncle was in a hospital for the insane. The patient's reactions on the preliminary psychological tests were of such a nature that he was considered a candidate for intensive examination. Patient stated that his mind at times was a "blank." He showed marked concentration defect, strained effort made him somewhat "panicky." Speech defect was present. On the Stanford Revision of the Binet-Simon Tests patient measured 13 years and 10 months with a range from the VIII year level to the XVIII year level.

Later classifications include Constitutional Inferiority under Constitutional Psychopathic State. The characteristics of the above cases were similar to those of the previous group except that the average mental age was slightly higher. The psychopathic traits were more marked than in the above group, although there was not sufficient evidence in any case to justify a diagnosis of insanity. Again a wide range of scores and irregularity of performance on the tests may be noted.

Our third group of cases received a diagnosis of Epilepsy.

Case No. 675—Referred from Receiving Unit. Family history negative except one brother who received a deferred classification in the Army draft because of insanity.

Patient gave a history of fainting attacks ever since he could remember; dizzy spells coming on almost daily. He stated that at times he would become unconscious for a short period, but denied convulsive seizures.

On the Stanford Revision of the Binet-Simon Test patient measured 10 years and 11 months, with a range from the IX year level to the XVI year level. On the tests the coöperation of the patient was good, although his manner was more or less colorless and mechanical. Patient's whole reaction suggested that he was suffering from an epileptic syndrome.

Case No. 683—Referred from Petty Officer Schools because he complained of having pains in his head, of feeling dizzy and unable to study. Family history negative.

Patient stated that in 1917 he was struck in the back of the head and was in an unconscious condition for about two weeks. He now complains of frequent attacks of dizziness in which his head "swims" and things become black before his eyes. The patient was under observation in the psychiatric ward for about a week. Examination showed him to possess considerable emotional instability and marked memory defect. He had a dull and apathetic expression and his general mood was one of depression. He was erratic in manner and very suggestible. On the Stanford Revision of the Binet-Simon scale he measured 6 years and 9 months, with a range from the III year level to the XII year level. His manner was naive and childlike.

Case No. 798—Referred from Brig because of an epileptic attack. Patient stated that he was subject to frequent nightmares and was observed in a typical Grand Mal attack.

On the Stanford Revision of the Binet-Simon Test patient measured 9 years and 5 months with a range from the IV year level to the IX year level.

The above cases were characterized by wide range of mental levels. The reactions were typical of the epileptic, being dull, apathetic and "washed-out."

Our last group are presented as typically feeble-minded.

Case No. 871—Prisoner awaiting court martial for refusing to stand watch. Family history negative. Patient had been 7 years in school reaching the 3rd grade and was unable to read and write. He has been under discipline numerous times for petty offences.

On the Stanford Revision of the Binet-Simon Test he measured 8 years with a range from the VII year level to the X year level. Patient was stolid and apathetic. Association was meager and stock of ideas was small.

Case No. 788—Referred from Receiving Unit. Family history negative. The patient was a butt of practical jokes to which he did not react in a normal manner. On the Stanford Revision of the Binet-Simon Test measured 8 years and 6 months with a range from the VII year level to the X year level. He was child-like and naive and would grin and laugh at irrelevant matters.

The two cases presented were selected from many similar cases and are typical of the feeble-minded group. It will be noted that range on test scores is narrow and that the psychopathic reactions on the tests are absent.

Conclusion. While no definite final conclusions can be drawn from the small number of cases presented, yet the following points seem to demand emphasis: (1) Diagnosis on mental cases should not be made on the basis of test scores alone. (2) A wide range of scores is significant in differentiating psychiatric types from feeble-minded types. (3) The reactions of the subject during the performance of tests is as important as the test score. (4) The performance of the Binet-Simon or some other standardized intelligence scale is an important part of the clinical picture in all mental cases.

The conclusions presented are only tentative, but it is believed that investigation in this field would yield suggestive results.

## SIGMUND FREUD, PESSIMIST.

BY E. E. SOUTHARD, M. D.

**I**T WAS between trains that I made a small discovery concerning Freud which has a certain bearing on the war. The discovery some might think a truism, namely, that the genial Freud is, philosophically speaking, a pessimist. The bearing of this discovery on the war consists in the fact that Freud's lucid avowal of his philosophical pessimism is made in an article published in wartime (1915) in a special journal (*Imago*).

It was between trains on a trip to Washington that I was about to fall asleep in the great heat when Freud's little work on *War and Death* floated to the top of the war literature. I sat back contentedly and read with satisfaction the translators' preface with its amiable talk about "advancement of the cause of international understanding and good will." It was that amiable physician, Dr. A. A. Brill, and a *New Republic* contributor, Mr. A. B. Kuttner, who were to give me the end of a perfect day in their authorized translation of Freud's essay, first published in 1918.

I turned the leaves and was for the moment almost lulled to sleep by the serene breadth of sundry observations which seemed to lap England and Germany together in a sort of Freudian embrace of an almost millennial tone. I kept thinking how the international understanding and good will were going to be advanced, and I wondered how Freud could make such a terrible arraignment of Germany and survive, even though his words were written in 1915. I assumed that the "authorization" of the very pretty translation which Messrs. Brill and Kuttner had provided must have come before the American declaration of war. Yet perhaps the translators' preface had been written quite recently. Upon reflection, I could not quite convince myself that either Freud or his esteemed translators had pro-German propaganda in mind, even (as they might say) unconsciously. Evidently Freud was bringing some of the phenomena of the great war into the scope of his special views, and evidently his translators had been so astonished by the depth of the Freudian admissions concerning German immoralism (even in an essay published as early as 1915) that they felt it was high time to show how a real philosopher looked



upon these mundane happenings. This opinion of the translators seems well established by the text of their brief prefatory note, which for its propagandist value I reproduce:

"This book is offered to the American public at the present time in the hope that it may contribute something to the cause of *international understanding and good will* [italics mine] which has become the hope of the world."

A perusal and reperusal of the essay is well worth while, as indeed of any Freudian essay. Remarkable for its lucidity, well translated, the essay is, in sooth, an interesting and important one; but I had not advanced far in its reading when the desire for sleep forsook me and I began to rub my eyes with astonishment. For the thesis which Freud here maintains may be concisely expressed as follows:

*Those who are not selfish and cruel are hypocrites. Selfishness and cruelty are the indestructible elements in man to which, repressed by civilization, we regress under the influence of war.*

Below I shall offer quotations from a portion of Freud's essay to prove that this is Freud's thesis. But before coming to these details and before speaking of their propagandist value, I feel minded to point out that, should I be able to prove my point, Freud stands self-confessed as a philosophical pessimist of a very familiar, nay, even banal sort. I fancy indeed that Freud would himself cheerfully concede the point. He would probably say that not to proclaim oneself a pessimist, philosophically speaking, is to be a hypocrite.

Perhaps the translators are right. Conceding for the moment that Freud has been proved to be a philosophical pessimist, may we not remind ourselves that many well-known pessimists do see the "hopes of the world" in an *understanding* of the world's basic evil? Granting this, may we not give ourselves leave to doubt, however, whether the world's *good will* can ever be gained for the pessimism of philosophers. That evil exists, all concede nowadays save the Christian Scientists, who themselves have a way of putting a demon in the cathedral walls in the shape of Malicious Animal Magnetism. But the M. A. M. of Freud is far more thorough-going; for him the world is at bottom a world of selfishness and cruelty, upon which the illusion known as civilization rests like a thin and delicate film, only to be dissolved at a slight touch of reality.

But are we entitled to think of Freud as a pessimist in the same sense as we think of Voltaire, of Rousseau, and of Schopenhauer, those giant pessimists of an older generation? Or descending to a

more recent day, are we entitled to align Freud as one of the minor pessimists with v. Hartmann and Nietzsche? I know many amiable Freudians, including the medical translator of this book, and I know that in their daily lives they are cheerful souls, and some of them as merry as grigs; but so far as that goes, Voltaire and at times Schopenhauer were mirthful and gay; and it is well known that confirmed pessimists get a tolerable joy from their views, or despite them. Is, or is not, Freudism a form of pessimism? If so, and if the Freudian contentions concerning this war and the abolition of ethical restrictions" which characterizes it are correct contentions, then we must indeed look to our philosophical fundamentals to justify a continuance of this or any war.

After reading this book, in short, we may very possibly understand the war better, but we surely cannot like it any better. I am reminded here of a celebrated remark by (that contradiction of terms!) an *English Hegelian*, Mr. F. H. Bradley, to be found in the preface of his metaphysical work on *Appearance and Reality*. Mr. Bradley had resurrected a note from his commonplace book and put it in the preface:

*"Where all is rotten, it is a man's work to cry stinking fish!"*

In his apology for the great war, Freud may have done a man's work, but it is a little trying to have the stench cry to the heaven of our *good will*!

But are not Messrs. Brill and Kuttner right in their hope, and am I not wrong in believing Freud a philosophical pessimist? And, secondly, even if Freud is a pessimist philosophically speaking, is Freud not right, and will not "the cause of international understanding" be forwarded by our acknowledgment that Freud is right? It will be profitable to separate these questions.

Is, or is not, Freud a pessimist? I cast him above, along with v. Hartmann and Nietzsche, for the part of a minor pessimist. I mean no disrespect by the term *minor*: but surely all three of these philosophers are yet remembered by too many men for their mere personalities to allow us to add them to the heroes of philosophy. Moreover, being a minor pessimist is consistent enough with being a major contributor of something else to the world. Thus, v. Hartmann stood for at least one of the many varieties of the *Unconscious* which he defined clearly enough. And Nietzsche got up the *Will to Power*, which (though Nietzsche castigated Germany in the best possible German style) is thought by some to express best of all the present aims of

Germany. Again, Freud appears to have added *dream-study* to the technique of psychopathological analysis, and this contribution may well stand forever as an important one, when his pan-devilish Unconscious, his erotic symbolism, and his homuncular mechanisms have shrunk to minor proportions or to nil. Let us hand to Freud, what assuredly belongs not to Nietzsche, the palm of clarity.

But is or is not Freud a pessimist? As hinted above, I fancy that Freud would himself grant that he is a philosophical pessimist. As for the Freudians, I find that they do not always go the whole way, and I do not know quite what they will declare. Freud himself certainly plumps for what he plumps for, whether it be sex or the Censor, dreams or Germany.

I want now to recall some of the well-known facts concerning the history of pessimism that might apply to Freud. But in order to hold his thesis in mind and test it by comparison with the outstanding pessimism of the past, let us listen to some of Freud's remarks. I paraphrase from an early point in the essay:<sup>1</sup>

*Civilization is an illusion dashed to pieces by collision with a bit of reality.*

Again:<sup>2</sup>

*"States and races" have in the war "abolished their mutual ethical restrictions," so that they have been observed "to withdraw from the pressure of civilization."*

Again:<sup>3</sup>

*"Our conscience is not the inexorable judge that teachers of ethics say it is; it has its origin in nothing but 'social fear'."*

Again,<sup>4</sup> we find

*"Civilization built upon hypocrisy."*

Again:<sup>5</sup>

*One is a hypocrite who "reacts continually to precepts that are not expressions of impulses."*

I shall below try to give some idea of the logical connection between these statements, but before doing so, let us get in mind the philosophical pessimism of history. The following parallel columns give a rough idea of the history of these developments down through the great names of Hegel, as optimist, and Schopenhauer as pessimist.

<sup>1</sup>Page 16-17.

<sup>2</sup>Page 30.

<sup>3</sup>Page 15.

<sup>4</sup>Page 28.

<sup>5</sup>Page 28.

Note that some names, as Plato, Rousseau, Kant, Darwin, appear in both columns, either because their points of view were double or because their conclusions have been used by both parties.

MAJOR  
OPTIMISTS

PLATO  
STOICS  
LEIBNITZ  
ROUSSEAU  
KANT  
HEGEL  
DARWIN

MAJOR  
PESSIMISTS

PLATO  
EPICUREANS  
VOLTAIRE  
ROUSSEAU  
KANT  
SCHOPENHAUER  
DARWIN

My suggestion now is that we can offer a list as follows of

MINOR PESSIMISTS

V. HARTMANN  
NIETZSCHE  
FREUD

As to pessimism, like most things philosophical, the historians carry it back to the arch optimist Plato. Plato thought that, on account of the connection man had with his material body and with the world of sense, the life of man had evil thrust upon it. The eternal good of Plato was accordingly limited by this material element of "non-being." The Epicureans and the Skeptics took up this pessimistic factor in the Platonic account and, dwelling upon the actual bulk of pain and evil in the world, thought to confute the ethics of the Stoics, who had followed the more optimistic main line of the Platonic conception. In fact, the Epicureans were more empirical than philosophical in their pessimism. The man of the world acknowledges the existence of pain and evil; the Epicurean simply found that pain and evil bulked larger in the world than the goodness of it and hence were obliged to be empirical pessimists.

No great contribution to the philosophy of pessimism appears to have been made from the time of Plato's pessimism, as expressed, for example, in Book X of the *Republic*, until quite modern times. Voltaire wrote in three days his famous novel *Candide* in ridicule of the

idea that our world is the best of all possible worlds, and perhaps it is unfair to ground a philosophical pessimism upon what was intended to be a mere skit. Still, the Voltairian contentions were at least symptomatic of the views of many in his time, and possibly became the views of his patron and pupil, Frederick the Great. Marshal Foch has pointed out how France introduced nationalistic warfare into the world in the Napoleonic era, and how this kind of warfare has come back to plague France. It is equally true that the notions of the French pessimist Voltaire may be said in the person of Frederick the Great of Prussia also to have come back to plague the land of their origin. As opposed to such pessimism as that of Voltaire is the optimism of Leibnitz, as expressed in his *Theodicy*.

In contemplating the views of Epicureans and Stoics, of Voltaire and Leibnitz, the psychiatrist is inclined to inquire how much of mental deviation may lodge in these philosophers, particularly in the pessimistic persuasion. I suppose that it must remain doubtful whether Voltaire was an out-and-out psychopath. That he was "all intellect" and somatically an odd stick may stand without question. On the whole, however, it remains far more doubtful in the case of Voltaire that he was psychopathic than it remains in the case of his successor, Rousseau. As for Rousseau, it would be a pretty inquiry how far his views were not merely colored but manufactured by his psychopathic temperament. According to Rousseau, man was naturally good but rendered evil by culture. Accordingly, Rousseau started his back-to-nature cult and made many a princess try her luck as a shepherdess. He is a man whose contentions may be placed on both sides of the account. Rousseau is in one sense an optimist, in another sense a pessimist. It may be observed that his view is in one sense the inverse of the Freudian view, for according to Rousseau, man is by nature good and by civilization rendered bad; whereas for Freud it would appear that man is by nature bad—that is, a compound of selfishness and cruelty—and that we can only hope for a little "sublimation" by the obscure processes of history.

Kant was doubtless greatly influenced by Rousseau. Whether Kant was psychopathic is as doubtful as in the case of Voltaire. However, he underwent a temperamental change in his life. From being a confirmed optimist, he appears finally to have become a believer in a radically base element in man, an element so extensive and important as to warrant Kant's being regarded as, if not a pessimist, nevertheless a father of pessimism.

As for Hegel, he assuredly regarded the world as evil if it was viewed statically in a cross-section at a given time. But the world in process, the world of actuality, was for Hegel a good world, and he has had many followers in the attempt to prove that evil is somehow good. Kant's view had run in somewhat the same direction. For Kant had been an optimist in regard to the potentialities of man, though a pessimist in regard to the present situation. Though man had a good motive in him, namely, the rational and universal motive of humanity, nevertheless the tendency on man's part was to make his motive of action out of mere self-love. To be sure, in a state of nature, both Kant and Rousseau felt that man had good natural propensities, rather naturally fitted to the ends of man. He was, as it were, in a sort of Garden of Eden, in a physical state of Paradise and in a moral state of complete innocence. It was, perhaps, not a snake which caused his fall, but it was something equivalent, namely, Consciousness. When a man grew conscious, according to Kant, he found he had a will, and by means of this will he got away from the natural law that governed his instincts. Through the operation of this will of his, man became evil. If civilization and culture are a product of the natural desires of man, then civilization and culture become non-natural affairs. Nature and culture are in conflict. The individual turns out to be necessarily unhappy in this situation. It was not up to history to make the individual happy. History's plot was to perfect humanity as a whole. In the process of this perfection, we were going to suffer tremendous conflicts and pain.

Hegel now took optimistic lines: somehow history was perfecting humanity. Perhaps it would not be too flippant to consider that Hegel felt that it was Germany's part to secure through history the perfection of humanity. We Anglo-Saxons, and of course also the clear-headed Latins, are a bit amused at this curious idea of Germans as the chosen people: but one does not feel that Hegel had any particular sense of humor in this regard.

Whereas Hegel laid hold upon the perfection of humanity in point of time, Schopenhauer laid hold of the Kantian notion of the will. Man, according to Kant, found he had a will and became through this will evil. There was a radical evil in the nature of man, of which for Schopenhauer the best account was that it was somehow the will. The rest of the Schopenhauerian story is to be read in every textbook of philosophy.

V. Hartmann now laid hold of the will concept and developed

from faint beginnings in older philosophy the semi-mystical concept of the Unconscious, a concept which is used to this day by the Freudians. V. Hartmann himself, despite his tremendous vogue and modishness, appears to have been a lucid critic, not only of other people's notions, but also of the Unconscious, and has left an analysis of the types of the Unconscious used by the different philosophers to the number of seventeen! That there was anything psychopathic about v. Hartmann that influenced his work is doubtful, though we may give full credence to the idea that temperament played a part. Darwinian notions had now become current. The Darwinian evolution could be used effectively by Herbert Spencer as an argument towards a millennium, and from that point of view one might regard Darwinism as a quintessence of optimism. But the pain and annihilation suffered in the struggle for existence might well lead to the employment of Darwinian concepts for the purposes of pessimism, and this it would appear has been the special task of many German authors. One seems to see in Nietzsche distinct traces of this use of Darwinism. While Sir Francis Galton was quietly developing his *Viriculture* and his noble concepts of Eugenics, Nietzsche was on the other hand depicting the ideas of the Blonde Beast and the Superman. Elements of logical identity might be found for these Galtonian and Nietzschean ideas, and the psychiatrists would be tempted to lay to the matter of temperament alone much of the difference between a Galton and a Nietzsche.

The Massachusetts Commission on Mental Diseases recently purchased a set of the works of Nietzsche, and the sober and astute financial officers of the State could find no fault with the purchase of such excellent psychopathic materials: Could not the state research officers profit by a direct study of the works of Nietzsche as much as by the study of case records from their hospitals? As in Rousseau, so in Nietzsche, we find obvious psychopathy. Perhaps it is even more obvious and more thoroughgoing in its effects in the case of Nietzsche than in the case of Rousseau. Nietzsche, born in 1844, appears to have been clearly psychopathic as early as 1876, and became obviously insane in 1888, dying only in 1900. Of course, it may be pointed out that Nietzsche revolted against pessimism and really in a way inverted the views of Schopenhauer. He wanted life led vigorously just because it was painful. Nietzsche had in himself enough psychopathy to study. Schopenhauer had studied the relations of moral and physical at the Berlin clinic of the Charité. In the twenties Schopenhauer had kept loaded weapons at his bedside. These two great pessimists

in the history of philosophy are, beyond all question and cavil, psychopaths. Shall we not draw a lesson from their psychopathy and seek, amongst other milder, milk-and-watery pessimists of a more modern day, the causes of pessimism in temperament?

In this wholly superficial analysis of the history of pessimism, whose main facts lie at the surface of every historical work, I do not mean to argue for or against the truth of pessimism. The decidedly healthy mind of William James found "a deep truth in what the school of Schopenhauer insists on—the illusoriness of the notion of moral progress. The more brutal forms of evil that go are replaced by others more subtle and more poisonous. Our moral horizon moves with us as we move, and never do we draw nearer to the far-off line where the black waves and the azure meet."<sup>6</sup>

One of the best popular accounts of pessimism is in James' essay "*Is life worth living?*" James there points out how "Germany, when she lay trampled beneath the hoofs of Bonaparte's troopers, produced perhaps the most optimistic and idealistic literature that the world has seen; and not until the French 'milliards' were distributed after 1871 did pessimism overrun the country in the shape in which we see it to-day." And no doubt there were political and economic factors in the development of the pessimism of modern Germany. In another portion of "*Is life worth living?*" James speaks of speculative melancholy as not necessarily an outcome of animal experience. He speaks of it as possibly the "sick shudder of the frustrated religious demand."

With respect to both Nietzsche and more modern pessimists one wonders how far this insight of James really carries. Certainly in Germany itself at this time there appeared to be tremendous readjustments in the attitude to religion, out of which one gets the impression that a frustrate state of mind must come. James regards pessimism as essentially a religious disease. He elsewhere defined it as "consisting of nothing but a religious demand to which there comes no normal religious reply."

Where there is no free will there is apt to be no religion, and pessimism has usually, though not always, allied itself with a philosophy which denies free will, namely, with determinism. Some provision for free will or the importation of novelty into the world, some concession of indeterminism, seems to be required for the religious man. Freud can probably be shown in all his works to be a determinist. That he

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<sup>6</sup>P. 169, *Will to Believe; Essay on the Dilemma of Determinism*, 1884. P. 47, "*Is Life Worth Living*," Wm. James.



is always so obviously a pessimist as his essay on *War and Death* implies, I think we cannot be certain. But is it not clear from even a superficial analysis of the history of optimism and pessimism that Freud is, historically speaking, nothing but another bead on the string of pessimists? Is he not using the most frequent tool of pessimism, namely, a world system without free will, without (so far as I can see) the operation even of absolute chance in the sense of Charles Peirce? a world system which employs that Jack-of-all-trades, the Unconscious, to secure results which a deterministic or fatalistic formula would not readily secure?

Of course, one must insist that determinists are not necessarily pessimists, and *vice versa*. As James acutely remarks, "Our deterministic pessimism may become a deterministic optimism at the price of extinguishing our judgments of regret." If we cease regretting and let by-gones be by-gones, we shall not need to be pessimistic. Neither v. Hartmann nor Freud has quite the "wild-eyed look" at life which James charges the pessimist with having. Schopenhauer and Nietzsche, obviously psychopathic, may readily answer to the charge. On the whole, however, one feels that the world of Freud as expounded in the last twenty odd years is a *somewhat* wild-eyed world, a "nightmare view of life," as James elsewhere expresses it.

In this new essay on *War and Death*, Freud however seems really to have let the pessimistic cat out of the bag of mechanistic tricks. I return to some quotations from Freud's essay, which runs as above-mentioned to the astonishing conclusion that everybody is a hypocrite who is not wholly selfish and cruel and that war tears the mask off this hypocrisy. War tears the mask off this hypocrisy whether it be a subjective or an objective one, for Freud opines that he has really found a *novum genus* of hypocrisy—*objective hypocrisy*.

Civilization, we saw above, is according to Freud, an *illusion dashed to pieces by collision with a bit of reality*. Accordingly our *disappointment over the war* is "strictly speaking [*i. e.*, intellectually?] *not justified, for it consists in the destruction of an illusion.*"

Freud writes avowedly as a German. He concedes that "science has lost her dispassionate impartiality." Would he grant himself one of "her deeply embittered votaries, intent upon seizing her weapons to do their share in the battle against the enemy?" Possibly. For, on a later page, Freud writes: "We live in the hope that impartial history will furnish the proof that this very nation, in whose language I am writing and for whose victory our dear ones are fighting [curiously

enough, Freud is an Austrian, though he seems here to identify himself with Germans], has sinned least against the laws of human civilization," and proceeds: "But who is privileged to step forward at such a time as judge in his own defense?" On the whole, however, Freud throughout makes a brave show of philosophical impartiality and cheerfully assigns to both sides an equal guilt in regard to the war's exposure of our (in Freud's eyes) fundamentally evil nature. "States and races" are described as having "abolished their mutual ethical restrictions" so that they were seen "to withdraw from the pressure of civilization." Both sides, he seems to concede, are equally at fault. I take it that Messrs. Brill and Kuttner were astonished at so great a concession by a German as the concession of mutual guilt. May this not be the true explanation of that extraordinary preface by Messrs. Brill and Kuttner about contributing to "the cause of international understanding and good will?" A German, writing to be sure from Austria, concedes a portion of guilt as Germany's. Is not this a bit of a *rapprochement*? Is not the time approaching for a Gargantuan embrace of the nations, a Brobdignagian kiss and make-up? This I can readily believe was a part of that which lies under that prefatory note. Another bit of underpinning is probably the belief that the world might well await the pronouncement of a Freud as a genuine oracle. For Freud has his votaries, and not the least of them is Dr. Brill.

Now, quite seriously speaking, I grant the oracle part and will not stoop to calling the stuff that emerges "Delphic"! It is lucid enough. It is important stuff also. But is it true?

Perhaps the most exact statement of the fundamental pessimism of man's nature is made in these terms:<sup>8</sup>

"The most pronounced childish egotists may become the most helpful self-sacrificing citizens," and "*The majority of idealists, humanitarians, and protectors of animals have developed from little sadists and animal tormentors,*" and, more summarily, "The earlier infantile existence of intense 'bad' impulses is often the necessary condition of being 'good' in later life."

Let us stoutly resist at this point the wish to doubt the cogency of all this logic and to question the accuracy of this psychology. Let us merely try to understand the implications of Freud concerning the pessimistic basis of many phenomena of this war.

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<sup>8</sup>Pages 13, 2 and 30.

<sup>9</sup>Page 21.

*Egotism and cruelty are primitive impulses in us.*<sup>9</sup> There is a “*deceptive appearance*” of altruism in place of egotism (Messrs. Brill and Kuttner use “egotism,” not egoism, here) and of sympathy in place of cruelty. Again let us resist questioning the accuracy of the term “deceptive” in this transformation and let us rather try to get Freud’s point. “*We learn to value being loved as an advantage for the sake of which we can renounce other advantages.*”<sup>10</sup> Again, “The influences of civilization work through the erotic components to bring about the transformation of more and more of the selfish tendencies into altruistic and social tendencies.”<sup>11</sup> Or still more pointedly, “Our conscience is not the inexorable judge that teachers of ethics say it is; it has its origin in nothing but ‘social fear.’”<sup>12</sup>

But how and why is this transformation “a deceptive appearance” only? If it be a transformation, why is it not a transformation? Why does it turn into an appearance? Well, one reason is “ambivalence” (love—hate, etc.) ; but, passing over this sleight-of-hand, we learn that society’s system of rewards and punishments does not always effect a genuine transformation. One person may, to be sure, be “always good because his impulses compel him to be so, while another person is good only in so far as this civilized behavior is of advantage to his selfish purposes.”<sup>13</sup> Honesty is here the best policy with a vengeance! “We shall certainly be misled by our optimism into greatly over-estimating the number of people who have been transformed by civilization.”<sup>14</sup>

Still forbearing to question the facts or the uses to which the alleged facts are put, let us on. These prudential hypocrites (“civilization built upon hypocrisy”<sup>15</sup>) ought, one might think, to be allowed the free and cold-blooded use of their algebra of worldly success. But no! civilized obedience, even for selfish purposes, seems to put a strain on this majority group of untransformed egotists. They are somehow the victims of “a continual emotional suppression.”<sup>16</sup> “*There are therefore more civilized hypocrites than truly cultured persons.*”<sup>17</sup> As to these hypocrites, it does not matter (according to Freud) whether they are conscious of their hypocrisy or not. *You are a hypocrite even if you do not know it—an “objective hypocrite”*<sup>18</sup>—and you are in

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<sup>9</sup>Page 19.

<sup>10</sup>Page 21.

<sup>11</sup>Page 22.

<sup>12</sup>Page 15.

<sup>13</sup>Page 26.

<sup>14</sup>Page 26.

<sup>15</sup>Page 28.

<sup>16</sup>Page 27.

<sup>17</sup>Page 28.

<sup>18</sup>Page 28.

fact a hypocrite whenever you "react continually to precepts that are not expressions of impulses."<sup>19</sup> The only impulses in question, be it remembered, are those of selfishness and cruelty.

It is thus fair to say that *those who are not selfish and cruel are hypocrites*. Those who are not selfish and cruel are victims of civilized suppressions. Hypocrites, whether conscious or not of their hypocrisy, are under a strain because they are not continually selfish and cruel.

Still not inquiring how true all this may be, let us ask how Freud makes it seem so to himself? It is because "the primitive psyche is in the strictest sense indestructible." The fact that psychic evolution is thus "unique" in the world of development does not stagger Freud in the least. *Au contraire!* For some reason Freud terms this alleged property of the psyche "plasticity." The indestructibility of the primitive psyche is just the plasticity of the psyche. Put otherwise, the (alleged) fact that selfishness and cruelty cannot be destroyed is an example of mental plasticity! The mind is "plastic" because you can always get down to selfishness and cruelty. In fact this vaunted plasticity is pretty much a one-way path of retrograde action or "regression." In fine, we poor mortals tend to selfishness and cruelty. Or, as one might say, man is cacotropic (a neologism of my own!). War creates these regressions, as it were hastens this cacotropic trend.

Selfishness and cruelty, or, more briefly, evil, is the indestructible element in man. And there is a pressure upon us, a "repression," when we get away from this indestructible evil core. In short, even the higher ethical processes are (here Freud might or might not follow me) in themselves evil, just because they produce these inhibitions, pressures, suppressions, repressions, hypocrisies. And, whether you feel any pressure of *Kultur* or not, anyhow aggression is your lot.

Well! what is to be the basis of international good will? Evidently whatever anybody in this war does is after all only to be expected. The *Apologia Freudi pro bello maximo*, as it might be called, is simply the *Apologia maxima et simplicissima*, viz., there is a radically base element in man to which he regresses in war.

With this blanket apology, let us now internationally be satisfied. The remedy? "A little more truthfulness and straightforward dealing."<sup>20</sup> Just what good this straight truth would do, I am bound to say

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<sup>19</sup>Page 28.

<sup>20</sup>Page 39.

I do not see; for all that we should clearly see would be that the evil in our psyche was indelible!

From all which one might veritably deduce that Freud was not only a pessimist, but a determinist. As apologist for the war Freud is, I think it may be allowed, a pessimist. It happens to be to Germany's interest to follow the Freudian argument. As *propaganda Teutonica*, the essay is admirable. Though Freud himself may be philosophical enough to view quite impassively the minimal differences in regression he sees between the two enemies, eager propagandists will readily seize on one fact. Had this war not been started, then these gigantic repressions would not so soon have taken place. Hence, whoever started the war is responsible for it all. But the Teutons were centrally situated, so by nature on the defensive: hence the Entente is obviously at fault. Merely combine philosophical pessimism with anthropogeography, and the tale is told!

Intentionally or not, Freud, I hold, has so manipulated his pessimism as to make a subtle apology for the Central Powers, all the while parading on the high line of impartial weighing of both sides.

Both sides "have abolished their mutual ethical restrictions." Instances of their regression I find in Freud's pages to the number of twelve classes. I understand Freud to intimate that both the Teutonic and the Entente Allies have been guilty. I simplify by letting it seem that Germany and England stand for their respective allies in this wrong-doing.

1. England and Germany have regressed from that stage of community progress long ago reached by the Greek amphictyonies that forbade (a) destruction of a league city, (b) the felling of oil trees, (c) cutting off water supply.<sup>21</sup>

2. England and Germany have not afforded complete protection to the wounded, the physicians, and the nurses.<sup>22</sup>

3. England and Germany have not properly considered the rights of non-combatants, of women, and of children.<sup>23</sup>

4. England and Germany have not in the processes of war sought to maintain the projects and institutions of international corporate life.<sup>24</sup>

5. England and Germany have placed themselves above the rights of nations and all restrictions pledged in times of peace.<sup>25</sup>

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<sup>21</sup>Page 10.

<sup>22</sup>Page 10.

<sup>23</sup>Page 11.

<sup>24</sup>Page 11.

<sup>25</sup>Page 12.

6. England and Germany have not respected the claims of private property.<sup>26</sup>

7. England and Germany have made free use of every injustice, every act of violence, that would dishonor the individual.<sup>27</sup>

8. England and Germany have apparently outdone the customs of previous wars in the degrees to which they have employed conscious lies and intentional deception against the enemy.<sup>28</sup>

9. England and Germany have intellectually repressed their citizens by excess of secrecy and censorship of news and expression of opinion.<sup>29</sup>

10. England and Germany have absolved themselves from guarantees and treaties by which they were bound to other states.<sup>30</sup>

11. England and Germany have made unabashed confession of their greed and aspiration to power.<sup>31</sup>

12. England and Germany have, by abolishing conscience (*i. e.*, "social fear") caused individuals to commit acts of cruelty, treachery, and deception.<sup>32</sup>

Freudism, if this account be correct, is certainly an extremist view of the universe; almost as extremist a view as that of Eddyism, to which allusion was made above. Why not ticket Freud pessimist and have done, just as we ticket Eddy optimist and have done? Why not use as practical physicians Freudism and Eddyism as alternative methods of cure by suggestion? On the one hand a suggestion that your native badness be now sublimated, on the other hand a suggestion that your badness simply does not exist at all? The choice of patients for Freudian sublimation or Eddyian subtraction of morbid agents might then depend upon the temperament discerned in the patient. These would be the *All-or-None* (as the physiologists say) alternatives of a two-way system of psychotherapy—back to the doctrine of original sin on the one hand, back to the doctrine of original bliss on the other. We might counsel brunettes for psychotherapy, Freudian type, blondes for psychotherapy, Eddyian type. Or possibly thin persons ought to be psychoanalyzed, fat ones given absent treatment. *Red slip; Sublimate! Blue slip: Oblivisce!*

Suggestion, Bernheim declares, is an *idea accepted*. Very well!

<sup>26</sup>Page 14.

<sup>27</sup>Page 14.

<sup>28</sup>Page 14.

<sup>29</sup>Page 14.

<sup>30</sup>Page 14.

<sup>31</sup>Page 14.

<sup>32</sup>Page 16.

Technique matters not, so the result be obtained. On the level of this broad definition the sage and catholic physician might choose to-day psychoanalysis, tomorrow Christian Science, for patients of different or shifting dispositions, on the sound psychological basis of the great polarities of man—towards pessimism, towards optimism. For the pessimist who is but half-hearted, a mere pejorist, we counsel thorough pessimism: *In the great world evil, sink thy small soul's evil and know that, whate'er befalls, thou canst but slide briefly down to the garden known of yore, wherein grows the Tree of Evil!* For the mere meliorist, him we counsel thorough optimism with its lotus leaves: *Extinguish thy sorrow and all thy judgments of regret: Forget and know that what thou shalt forget exists not, nor know we how that ever did exist, saving only by M. A. M.*

Some of these features I place in parallel columns:

<i>Eddyism</i>	<i>Freudism</i>
Idealistic	Materialistic
Indeterministic	Deterministic
Optimistic	Pessimistic
Evil Illusory	Good illusory
But, M. A. M.!	But, Sublimation!
Forget!	Recall!
Spiritual and Absent treatment	"Catharsis," Intimate re-education
Disease: delusion	Disease: flight from reality

I mean no disrespect to Freudism or for that matter to Eddyism in these parallel columns. One may regard Eddyism as a degenerate or pseudo form of idealism, a sort of backwater in the American philosophy of Emerson. One has naturally no design of denying the cures affected by Christian Science. As for Freudism, the logic is as finely drawn and complex as Mrs. Eddy's is coarse-meshed and simple. Eddyism is sectarian. Though Freudism threatened at one time to become sectarian, doubtless we now see a tendency to the utilizing of Freudian concepts in everyday terms. In fact, some are discovering that much of the novelty in many Freudian contentions lodges in nomenclature only. I am utilizing the parallel columns for the purpose of showing that any extreme optimistic view and any extreme pessimistic view is quite unlikely to be a sound view. At all events, the man who confronts the phenomena of Eddyian optimism and Freudian pessimism has the question sharply put up to him. What

after all is the truth about this world? Is it a radically evil world or not? Evidently Freud believes and avows that it is, and on that ground can justify anything that even Germany could do.

I said above that we could well separate the questions, Is Freud a pessimist, and, Is pessimism so? I consider that I have sufficiently proved that Freud is a pessimist. But why should he not be?

Why should we not be philosophical pessimists if the primitive and indelible instincts of us all are those of selfishness and cruelty? *The* instincts! Here we could toss the ingenious Freud in a number of logical blankets. I forbear! Whether my primitive instinct is not one of cruelty or whether I am buoyed up on a cloud of illusion, I forbear to show that Freud cannot tell *some* from *all*. We are all engaged now in trying to teach Pan-Germany that little distinction, *some versus all*! Freud, the subtle spokesman for Teutonic crimes,—can he really not tell the particular from the universal? Does he really think the one indestructible thing in man is a pair of instincts, selfishness and cruelty? Has he ever spent five minutes with books on instinct? Or is he merely a special pleader, choosing as propagandist to omit mention of all instincts save those he wants?

A slight technical acquaintance with Freud's writings will, I assure the reader, show quite readily that Freud is perfectly capable of all the arts of logical fencing. I do not deny that Freud might, to prove an honest point, deliberately suppress a lot of little instincts that seemed to him trivial in comparison with selfishness and cruelty, *e. g.*, such familiar instincts as gregariousness, constructiveness? Again, what does he do with selfishness and cruelty themselves: are they identical or not?

A truce upon such stuff, the pragmatic American wearily cries. No one really believes it. Freud is just the pepper of our substantial flow of soul. Freud is just the spanking we easy-goers perpetually need. There is a time for Freuding and a time for Eddying. Thus the pragmatic American.

But will said American ever wake to the fact that perhaps Freud really believes his talk and that perhaps the one good reason for Freud's believing is Freud's temperament? Will the American ever wake to the fact that perhaps the Germans, dear to Freud, really believe that everybody in the world is, according to the Freudian formula, a subjective or objective hypocrite? Will the American ever wake to the fact that, not militarism, but pessimism, not soldier-worship, but devil-worship, is the philosophy, the religion, of Germany? To the fact



that, though every trace of the cruelty-machine were obliterated, the selfishness-machine would survive? To the fact that these Germans are of this subjective belief: that civilization is founded on hypocrisy? To the fact that all seeming proofs to the contrary are taken by the Germans as but tokens of a deeper hypocrisy?

Crush militarism out of Germany as we may, we shall not regenerate her so long as this Freudian formula of universal hypocrisy prevails. Voltaire with a laugh gave a *Candide* for a *Theodicy*. Darwin, who read German with difficulty, handed the psychopath Nietzsche some *matériel* which the psychopath Schopenhauer had not. The lucid v. Hartmann and the lucid Freud, apparently without a trace of psychopathy in them, serve symptomatically up to the modern German taste such philosophy as I have sketched above. Only a certain élite subjectively believed a v. Hartmann of yesterday or subjectively believe a Freud of today. But—let us borrow a little logical trick from Freud—if Freud can talk of *objective hypocrisy*, let us talk of *objective beliefs*! Germany, I consider, at times subjectively, but for the most part objectively, holds to the philosophy of pessimism. It will be Germany's fault, cried Nietzsche, if we do not get rid of Christianity. But why prod the poor Blonde Beast? *Objectively* he had already gotten rid of Christianity and all its likes. With a certain bravery the psychopath Nietzsche threw out the banner of the *Wille zur Macht*. He had painted the black lily of Schopenhauer with some foreign pigments. Darwinian were they—but "where all is rotten"? Hear ye, Hear ye, O objective hypocrites! A little straightforwardness and truth! "Where all is rotten!" Live not in despite of evil: Live and will your lives to power not in despite of evil, but because of evil.

Are the Germans psychopathic? The inquiry is open: They themselves have lodged the question, Is not France affected by the revenge-psychosis, *Psychopathia gallica*? No! No! soberly answered a German critic of this *Psychopathia gallica*. No! No! for in that case we should be compelled to pity France, poor morbid France! One does not indict a whole nation, even France, not even Germany.

I have not called Freud psychopathic; I do not call Germans psychopathic, much as I should like to pity him and them. I find him and them philosophically pessimists and believers in absolute evil. I consider that the most brilliant expressions of pessimism have been really psychopathic, witness Schopenhauer, witness Nietzsche. These men were temperamental extremes of a psychopathic degree, beside whose

brave wailings the stuff of v. Hartmann and of Freud seems anemic and banal. But—is it not always so?—when the psychopath leads, the stampede psychology of the mob is ever more violent. Why? I know not. Perhaps because the psychopath often expresses himself with abnormal clearness. Psychopathic sincerity is ever more persuasive than the common sort. Beware the clear issue! It is not real. The world is yet obscure. Who is this demagogue who has (thank God for the word) *doped* out this transparency of thought? Voltaire tucked a little germ in. Rousseau rubbed it deeply into Kant, who grew old with it. Napoleon burned every soul with it. Schopenhauer psychopathically played with it and youth hugged the idea. Darwin gave them strength. The French milliards showed how goods might be delivered by the simple formula, Selfishness  $\times$  Cruelty = Goods Delivered. Nietzsche got the whole thing out nude. V. Hartmann nicely draped the Unconscious over all. Murder will out: for the eloquent Freud it remained to blab the whole thing: *The choir hypocritical!*

They borrowed the air-planes, they borrowed the submarines—but *mirabile dictu* they borrowed their philosophy! One thing they did not borrow—the psychopathic weapon, gas. In like sense, from the psychopathic essence of pessimism found in Schopenhauer and Nietzsche, they did not borrow—the poisonous idea of universal hypocrisy.

But did I not say that I might inquire, Is pessimism so? Bah! after looking up a few of the instincts, *e. g.*, in the ants, read a bit of Plato and enlist! All the while remember that some people, perhaps Freud, really believe the world fundamentally bad—mind, I say, *really believe!*

By the way, as I fell asleep over the Death part of Freud's essay (it was very hot on the way to Washington—think of all the nice fellows trying to be homothermous down there, that summer of 1918!), I dreamed a dream. *Pace Freudé*, it was about the Homeric Chimera. A Chimera is a Hypocrite. It is something of a Blonde Beast in front. It is, to be exact, a Lion in front. It is a Snake behind. It is midways a Goat. I seemed in my dream to be musing on orientation. The Snake seemed to be in Russia. In a dream you can see all around even a Chimera. The Lion part was roaring and bloody enough. The Goat part—Gambetta, Bryan, and I seemed to be pulling off a sort of *Levée en masse* together, when I woke up and lost a whole train penning these lines.

## POSTSCRIPT

While the above paper was in press Mr. Charles J. Rosebault published in the New York Times, Sunday, August 24, 1919, in an article on "Americans Who Were More German Than Germans" some notes of an interview since the armistice with Freud. Mr. Rosebault quotes convincingly from Freud's book on "War and Death" to prove that Freud justified the Prussian theory of the supremacy of the state over morals and ethics. According to Rosebault, Freud is evidently reconsidering these published views and was unwilling to repeat them, saying that he had been fed upon nothing but lies for five years.

## REVIEWS

### A TRILOGY OF EDUCATIONAL METHODS

Dr. Ed. Claparède: *Psychologie de l'Enfant et Pédagogie expérimentale*. (1916, Librairie Kundig, Geneva.)

Maximilian P. E. Groszmann, Ph.D.; *The Exceptional Child*. (1917, Charles Scribner's Sons, New York.)

H. Addington Bruce: *Handicaps of Childhood*. (1917, Dodd, Mead and Company, New York.)

ON THE shelves of THE JOURNAL's office stand three books on Child Study, calling for the customary review.

As someone has said, three is a number convenient to reason about since it is the first in the scale of quantities that acknowledges two ends and a middle! We shall the more easily compare our authors. We place at one extreme (that of comfortable simplicity of statement) the presentation of Bruce on the *Handicaps of Childhood*, an excellent piece of popularization. At the other end of the see-saw, in a position somewhat more exalted and less accessible to intelligence, rises the offering of a facile and encyclopedic writer, whom the publishers have "featured" on the jacket of the book in a striking portrait of "the well-known child expert," M. P. E. Groszmann.

In the pivotal center, is the *Psychologie de l'Enfant* of Claparède (fifth edition), the appraisal of which appeals to us as a profitable preliminary to a discussion of the other two works.

Of course, it is distinctly a Swiss work. The author does not mind acknowledging the (to us obscure) labors of Doctor this and Doctor that, performed here and there in the small towns of the land of Pestalozzi. Should the reader smile at the parochial appearance of this field of survey, he should promptly be told that the ordinary High School (*i. e. Collège*) of Switzerland can give cards and spades to many of our supposedly full-fledged colleges and "universities." There, earnest education, intensive cultivation, without the blowing of any horns, is the rule. Yet Claparède is still restive under the inevitable red-tape of government schools. This very attitude assures us that what is to be put before us is likely to be the real meat of the problem of the child.

#### A REFLECTION OF SWISS EDUCATION

Although Claparède is a University teacher, and, moreover, is identified with an interesting foundation for experiments in education, now called The Institut Jean Jaques Rousseau, this does not imply over-devotion to a schoolroom point-of-view. For that dull and distressing interest in grades and marks that still flourishes in this country (to the extinction of the vital spark in child training) casts no shadow on his work. Claparède must be thought of as a biologist, and biologists are not often triflers with pedantic details. Sobered by the overwhelming intricacy of Nature, they desire to inform—not to astonish—the other fellow. This is exactly the cast of Claparède's thought. There is economy of style and of statement in this most substantial of offerings.

Far from imitating the anecdotal style of Rousseau,—symbol rather than exemplar of education in Switzerland—Claparède, eschewing all that spurious anthropology that inspired the “back to nature” preachments of the eighteenth century educator, is thoroughly of the twentieth.

Perhaps as significant as anything is his wistful reference to the principles of scientific management (under the head of Taylorism) echoing, throughout the work, his invocation of the spirit of Motion-Study as the ideal of child-training. The implication of this reference is somewhat confusing to the American reader, who is led to recall “piece-work” and trade-union disputes. But a glance at Claparède’s introduction, with his moving defense of those too often unappreciated teachers who have labored to promote truly observational psychology in education, will at once reveal in what sense *scientific management*—in place of pedantry—is his goal.

The plan of his *Institut* for experimental pedagogy would seem to leave no room for educational side-shows; but, like a factory manager, Claparède’s interest is in *rendement* or performance. We wish his constant reminders in this direction, and his denunciation of EXPERIMENTS AT THE COST OF THE PUPIL could be read by certain members of the National Educational Association who, too often, approve pedagogical systems where experiment is only an intriguing oscillation between two fads.

#### THE AUTHOR NOT A FADDIST

Claparède is restful with the spirit of real questioning regarding education, not with the slogans and shibboleths of those American teachers who, at the end of the nineteenth century, had run psychology into the ground and earned the kindly rebuke of William James in his *Talks to Teachers*. Claparède notes how strange this warning of James against psychology seems to the European; but he shows excellent historical sense in explaining the difference between Europe and our America, where Child-Psychology—as Claparède is too polite to say—is mostly Psychology and very little Child.

The work is articulated; not a fluid mass like *L’Emile*. Above all it is not anecdotal. Do you want to grasp his approach to previous opinions: there is an eclectic outline of educational history in CHAPTER ONE.

In CHAPTER TWO, there is a statement of the problems of pedagogy, somewhat heavily laden with terms of the pediatric family; in which, however, “*pédagogie expérimentale*” deservedly stands out. This classificatory nomenclature is the part that is least helpful to the American student—and we tremble for perspiring schoolmarms in Summer Sessions. But to French minds, this chapter promises no difficulties; to them these partitions offer guide-ropes that make the mental traffic easier, although to some of us they will be as walls that conceal the objective. Even so regarded, there is an issue from this labyrinth: Claparède’s thread-of-Ariadne is his obvious tendency toward a distinct method, which leads us along and holds our hopes, in not unpleasant suspense.

CHAPTER THREE is much enlarged over the previous edition. It presents

splendidly and clearly those now well-crystallized deposits of mathematical, statistical and logical method whereby the immediate complexity of the human factor can be reduced to something like the picturesque simplicity of the Cartesian curve. The plot of the child-soul, as it were, becomes graphically intelligible. It is a vista that is presented with the skill that bespeaks the excellent orientation of the writer in biologic thought. All this is enhanced by well-chosen illustrations: the bell curve of Galton and similar frequency-curves, as pictured by massed rows of pupils in perspective, are ocular rest-camps. The chapter on Method would alone be a short-cut to those discussions of mental measurements that are the despair of ambitious, yet plodding school-teachers. Most presentations are only exemplars of how not to teach. What is more, Claparède does not desert his reader at the end of this third act, leaving him "*planté là*" at loose ends when the curtain goes down.

#### A BIOLOGIST'S VIEW OF EDUCATION-BY-INTEREST

The mind remains in well-ordered anticipation, when CHAPTER FOUR works out the dénouement of his pedagogic theory. It amounts to this:—mental development through the use of native biologic interests, like those evoked in the stimulus of games. To expand the idea, Claparède depicts the state called Interest with its full panoply of psychologic significance. His interpretation rests upon the biological formula that *interest*, as the Latin derivation reminds us, deals originally with something of importance to the individual—for which, thus, we may assume that he already owns a prepared mechanism of reaction. Education, we may infer, is training these interests (like the tendrils of a virginia creeper) to expand in a specific direction over the trellis of the Arts and Sciences. According to this biologist, education cannot afford to lose its point of attachment to the parent stem that feeds it—native interest. Needless to say, Claparède is not a defender of the sophister of Geneva to the point of favoring the exaggeration of the play-school idea until it becomes the as-you-will, *laissez-aller* type of education that has too often captivated American mothers who thought they were cheering the banners of John Dewey.

It is a pity that the Chapter on Intellectual Fatigue had to be omitted on account of the expansion elsewhere. Claparède promises us, however, a *thèse à part* on this and cognate topics. Perhaps it is just as well that he should have held it back, since in the present unformed and uninformed state of educational opinion on the very rudiments of intellectual fatigue, Claparède might well hesitate to enter the lists without taking an extra long breathing spell. Is it necessary to say that when he takes up anew the subject of Fatigue, having now so well tilted as the champion of Education-by-Interest, we may expect further victories over those who in theory and alas, in practice, refuse to admit "intellectual fatigue."

#### CLAPARÈDE: APOSTLE OF SANITY IN EDUCATION

It is useless in a review to try and sound the deep implications of Claparède's method of composing this treatise. It eludes immediate discovery because it comes from deep springs, being not at all like those shallow seeps from the groundwork

of education that the recent freshet of psycho-analytic outpourings on child study has occasioned. But a pretty little example of *multum in parvo* may be found on page 246, (Chapter III, Section 1) where he swings, as it were with one hand, Freud's silly explanation of infantile amnesia. Claparède's biological common sense and his refusal to be glamored by the Teutonic propaganda that has set so many American educators agape is shown when he very simply says: "We forget childhood memories because there is so little a mass of associations to form a cohesive body. It is not the inhibition of memories of childhood that we have to consider, but why so many should persist at all." Claparède here, facing a Freudian mare's nest, seems to echo the spirit of John Dewey's dictum that in philosophy we do not solve our problems—we get over them!

Everywhere, Claparède gives each author a run for his money. To read Claparède is to get over a great many problems, and to benefit by penetrating, with this wise Cicerone, many of the deceptions and mirages evoked before our eyes by the vaporous clouds of near-thought that have been exhaled over the waters of education. For the coming Revolution in educational methods we think Claparède would give us the campaign book and be, for the educational revolution, what Rousseau was (on a lower plane) for the French Revolution.

**T**HE fascination of child-study—like the witchery of kodakery—depends upon order, selection, focusing and point of view. The result should be a just balance in the finished picture. If Claparède exhibits an orderly "travelogue," touching the natural history of education, Groszmann, on the other hand, has given us a collection of educational picture post-cards. For, somewhat scattered and choppily assembled bits of intellectual flotsam and jetsam compose *The Exceptional Child*. We imagine that to watch the author at his work and to be guided by his success with actual children would be even more profitable than to scan too anxiously this bag of chips from his workshop.

It is an encyclopedia *in parvo* of the great and growing problem of the child. Groszmann may be counted on to be aware of all the trends of opinion and to be all-comprehensive in his acknowledgement of them; although here and there a little too lenient with manifestly fly-by-night theories.

Where does this lead to? We should say, on the whole, that the outcome of reading—perusing would be a more manageable task—this book is that one realizes how much, how very much, pro-and-con one has to wade through, in order to be in the swim as an educator, to-day. Groszmann follows the fashion even to the extent of professing to be unfashionable on special points, like the use of the Binet-Simon scales.

#### A MANUAL OF SUPER-TESTS

His opinion of the Binet-Simon Test is pungently suggested in such a "bold-face" heading as "THE AUTHOR'S LARGER SYSTEM." The Binet-Simon tests may, as he thinks, be indecisive in regard to the pupil who is tested, but they are quite a touchstone in regard to the tester. Some, like Claparède, take Binet-Simon with

a grain of salt, and acknowledge, as does also Addington Bruce, that this contribution to educational "standards and specifications" is a notable one—and they rest at that point. Later, under another head and with a new breath, they may take occasion to point out that Binet & Simon have *not* evolved a new scheme to satisfy the market that clamors for a successor to the phrenological chart. But who needs to imitate the positiveness of Goll and Spurzheim's Phrenology nowadays?

Emerson, protesting against the arbitrary school of his day says: "I refuse to take a high seat and adapt my conversation to the shape of heads."

Now, Groszmann very properly refuses to be bound by the Binet-Simon scale, but he improperly fails to see that his own scale, although larger in its pretention, is not necessarily larger in results. Almost everybody now has some modification of his own; the real point is that none of these scales in the hands of any one not the inventor can be satisfactory, unless he or she is willing "to make it one's own." But for this consummation, there is sometimes lacking that biological facilitation of the type of Interest which we call "*amour propre*." Whereas, enthusiasm for something of which one can say "It is my own invention," may lead to a blossoming of undreamt skill in helping children out of their difficulties of adjustment. It is in this sense that even the exaggeration of the Mental Testing fad has helped-on educators to a higher stage of self-realization. In classic phrase "there is a treasure hidden in it."

The man who takes a Comenius-like interest in standardization, book-keeping and classification of mental traits, may, (through sheer captivation of his own pride) find himself a teacher in spite of himself. This is ostensibly true of the Binet-Simon scale, and the same is true of other scales, including "the larger system."

#### A REPERTORY OF CHILD-ANOMALIES

Although dealing very directly with the "exceptional" child, it is fair to say that the book sheds a light on all education, because all children are, in a sense exceptional. Or, to put the matter in a slightly different light, all children exhibit transitory exceptional phases that deserve scrutiny, and mental preparation on the part of the parent. Hence it is a boon to any educator (including any intelligent mother) to attempt to compass Dr. Groszmann's book. Like the field of the farmer in Aesop, it should be dug and delved into because "there is a treasure in it."

One real piece of value is the author's Classification Chart of exceptional children. Here the stress is upon pseudoatypical children—implying that many parents need no longer be faced with the bald question: "Is my child feeble-minded or is it not?" There are many mansions in the House of The Exceptional Child, and all the more room for individualized treatment.

The book has a good index and needs it. The Medical Symposium, from a galaxy of special workers, is a very eclectic addition of one hundred and forty-four pages, alone worth the price of the book.

As a whole, *The Exceptional Child* has not the disadvantage of being, or really pretending seriously to be, authoritative—dismal word in education—



but, on the contrary, shows the flux and seething in the various tendencies of education and that they are already drawing the hitherto calm medical circles into the pedagogic whirlpool.

**W**HAT is of interest to the student of abnormal psychology, in works like these, is not so much the actual opinions of the writers—for they are subject to change and evolution—but their testimonials touching the importance of studying ANOMALIES in child development. This means, in other words, enriching the current conception of the Abnormal. That this is a slowly growing conception is only too evident from the history of what was once called Morbid Psychology, and in the present-day mis-beliefs that are attached to the word *abnormal*; even as if it implied something outside the pale of Sanity.

Yet, we know that the exceptionally bright child and the retarded child lie equally in the province of the Abnormal—technically speaking. He, whom we might call the Anomalist in psychology, is still unfortunately, viewed as an “abnormal psychologist”—non-technically speaking—as if he were a psychologist off his beat. Yet he differs from his fellows, not so much in his preoccupation with the “morbid,” as in his reaping of benefits in that field for psychology as a whole.

#### THE FIELD OF THE ANOMALIST

So it happens, that, under the banner of the Behaviorists—those stern Pilgrims in psychology, who regard overt Behavior as the criterion of the human soul—we are coming upon the ANOMALIES of human conduct as if by accident, while engaged in a drive for that promised land where there are “norms” and psychometric curves for every kind of human activity. That is to say, while maintaining a mathematical ideal (worthy of the aspirations of Thomas Hobbes, seeking to put psychology on the same plane as geometry) the hosts of Behaviorism are only skirting the bogs and quagmires of anomalous, erratic conduct, side-stepping the introspective methods that would explain and control those seeps from the subconscious: the very ones that contribute the Unexpected and the Incalculable element to “humane Nature.” The misfortune is that the psychological laboratories have not detached, from their main forces, any group of trained minds to reduce these true problems of Psychology to anything like practicability, i. e. for easy communication with the real inside meaning of human conduct—in case it is at all exceptional. This is, indeed, the reason for the continued existence of a separate exploration, called Abnormal Psychology. It is, for one thing, the science that leads us to look *behind* the marks and the grades of the child, when he returns from school to the home-table, with tear-stained face and lost appetite; something has gone wrong—a bad report the cause, and a meaningless bulletin of criticism from the teacher the only help offered to the perplexed parent. . . . Then is the time that Abnormal Psychology comes into play, whatever may have been the suggestions of the Binet-Simon tests in school, or of the child’s previous exemplary behavior. But what a rudimentary psychology of the Abnormal still passes current!

For the advancement of Abnormal Psychology both Claparède and Grosz-

mann are opening the way, by showing the need. They are also filling in the gap between the mathematical conception in Educational Psychology, and the conception of something deeper, worthy of exploration, that is not mathematical, as yet. We refer to hidden wishes, sub-conscious desires, motions, mistaken prejudices on the child's part—things that John Locke warned us to pay heed to, as early as 1696—for they are the quantitatively indefinable realities of the human spirit. Of all these realities the Behaviorists are, as yet, not sharply aware. As a speaker at a meeting of the American Psychological Association wittily remarked: "The Behavior laboratory bears the sign 'All ye who enter here, check your souls at the door.'"

#### THE "SOUL" NOT YET PLUMBED

Outside that door, in every-day-life, the Anomalist must continue to work with the soul of the child; and it is to him that we must turn for an answer, primarily, to the genuine problems of childhood. He must study causes, not results, in education. It is he who must say: "We may not be able to do anything for you adults, but we can do something for your child to prevent you from brow-beating and shell-shocking the sensitive spirit, which you cannot penetrate with your home-made behavior tests." It is he who should acquaint parents with the conception of Lockean trauma—the idea that gave John Locke his inspiration for the phrase "association of ideas." . . . "Many children imputing the Pains they endured at School to their books, they were corrected for, so join those *Ideas* together, that a Book becomes their Aversion, and they are never reconciled to the Study and Use of them all their Lives after; and thus Reading becomes a Torment to them, which otherwise possibly they might have made the great Pleasure of their Lives." (Page 283, "Human Understanding," 3rd Edition, London 1705).

This whole terrain of the "association of ideas" (in the original "anomalous" sense, which was evidently that of Locke) is the field of the anomalist, where, pedagogy and psychology are in a fair way to meet.

Now, justifying the above statements—which sound like a digression—is the work of Addington Bruce, *Handicaps of Childhood*. This balances, by sheer human interest, the technical weightiness of Groszmann's *The Exceptional Child*; for Bruce's work drives home the conception of anomalies as part of the development of the child and fits the reader at least to sense them.

THE author of *Handicaps of Childhood* has powers of exposition of no mean order; the special powers, as it were, of the journalist who, having no deep interest at stake in what he is writing about, treats his topic as an "events-man." Thus, he is able to impart a smooth and easy-going aspect to his short chapters, devoted to such topics as I. Mental Backwardness; II. The Only Child; III. The Child Who Sulks; IV. Jealousy; V. Selfishness; VI. Bashfulness and Indecision; VII. Stammering; VIII. Fairy Tales That Handicap; IX. "Night Terrors."

Readers of *The Journal of Abnormal Psychology* can guess the contents of each chapter, but can scarcely estimate the effect of putting such data in tabloid form before parents and educators.

Bruce's *Conclusion* palpably brings us to one of the most important spheres of Abnormal Psychology,—always before the Anomalist—the sphere of the emotions. . . . “From what has been said in the foregoing pages, it is an irresistible inference that the greatest of all handicaps a child can have, short of being born hopelessly deficient, is to be born into a home where he will be exposed to mind-deadening or emotion-stressing influences—a home where he will receive neither adequate mental stimulus nor adequate moral training. Under such circumstances, so profound is the influence of the early environment, his growth to a normal manhood is impossible, unless other and more favorable influences from outside the home affect him with sufficient force to offset the home surroundings.” (P. 303).

This shows, as it were, the “reverse of the medal”: Emotional Interest as a mis-educating force. (Claparède).

#### AN EXCELLENT POPULARIZATION

Bruce is not complex, but very readable alongside of Groszmann: scientific anecdotes of child study lighten the pages. In pursuit of human interest, he not only tells of children that have been helped specifically by this or that physician, of this or of that school (the Freudians have the lead) but he “comes down to brass tacks” sufficiently so that the eyes of Anxious Mother are opened to the existence of SOMETHING IN THE DEPTHS of the child's life that is more worthy of attention than what appears so plainly on the surface.

It is not to be pretended that Bruce is profound. He would miss his functions if he were less journalistic. He is the Frank H. Spearman of psychology. Like Spearman, who wrote about the strategy of great railroads and captains of industry, Bruce habitually pays his compliment to all the leading figures in psychology and psychological medicine, even featuring many theories that are destined to have only a transitory “*succès d'estime*.” But, like Frank Spearman's words about each and every magnate in the railroad game, it all helps to orient the reader; and while we cannot readily think of Frank Spearman or Addington Bruce as strenuous enough to drive for a reform in his particular province, (like Claparède) or to “saw wood” with continual experiments (like Groszmann), yet the application of the journalistic style to a problem like child study, no less than to the railroad question, is of obvious utility; it keeps the public awake and aware, and open-eyed for the day of reform.

In this sense Bruce's work is a prospectus, which advertises those possibilities of child study that may be obtained by simplifying and digesting the implications of Groszmann and of Claparède.

Before taking leave of our authors, it should be said that the result of a tour of the Museum of Education with the help of these three books, should be to bring us closer to an appreciation of the growing importance of studying so-called anomalies of the child, such as dreams and the emotions—concerns that could bear even more emphasis than these authors have space to give to them.

L. H. HORTON.

# THE JOURNAL OF ABNORMAL PSYCHOLOGY

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## ORIGINAL ARTICLES

### THE PSYCHOGENESIS OF MULTIPLE PERSONALITY<sup>1</sup>

BY MORTON PRINCE

#### LECTURE I

#### FOREWORD

As an introduction let me say that in a previous lecture (The Unconscious, Lecture VIII) I pointed out that in a general way alteration of personality is effected through the primary organization by experience and later coming into dominating activity of particular systems of ideas with their affects, on the one hand, and the displacement by dissociation or inhibition of other conflicting systems on the other. In slighter degrees and when transient this alteration may be regarded as a mood. When the alteration is more enduring and so marked by contrast with the preceding and normal condition as to obtrusively alter the character and behaviour of the individual and his capacity for adjustment to his environment, we have a pathological condition. When the alteration is slight and affects few systems it may be easily overlooked; or when it is accompanied, as it often is, by physiological disturbances, it may be so masked by them as to be mistaken for so-called neurasthenia. It is when the dissociation is so comprehensive as to deprive the individual of memory of his previous phase of personality, or of certain acquired knowledge or other particular experiences that the personality is easily recognized as a dissociated one. When the inhibiting or repressing force that induces dissociation ceases to be effective, that is when the dissociated systems

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<sup>1</sup>This study of two cases of dissociated personality was written several years ago and was originally intended to be included in the volume published under the title of *The Unconscious* (The Macmillan Co. 1914). This intention was not carried out because of the undue size of the volume it would have entailed. It was therefore, reserved for the later publication in another volume but the study of one case is now published in advance. The lecture form is retained as a convenience.

come again into activity and repress the temporarily dominant systems, then the individual returns to his normal condition (in which he may or may not remember the dissociated state), just as a person returns to his habitual character after the passing of a mood. We may speak of the two phases—the normal and the altered one—as constituting together *multiple personality*. As these two phases may continue to alternate with one another they are also alternating personalities. The second or altered state is also sometimes called a *secondary personality*. There may be several such secondary personalities which may alternate with each other or the normal personality.

It should be noted that the formation of a secondary personality is the result of two processes, dissociation and synthesis. As a result of the first process, dissociation, systems of thought, ideas, memories, emotions and dispositions previously habitual in the individual may cease to take part in the affected person's mental processes. The influence of these systems with their conative tendencies is therefore no longer for the time being in play.

When we pass in review a large number of cases, we find that the systems of ideas, which (through the dissociating process) cease to take part in personality, may be quite various. One or more "sides" to one's character, for instance, may vanish, and the individual may exhibit always a single side on all occasions; or the ethical systems built up and conserved by early pedagogical, social, and environmental training may cease to take part in the mental processes and regulate conduct; or, again, the ideas which pertain to the lighter side of life and its social enjoyments may be lost and only the more serious attributes of mind retained. There may even be amnesia in consequence of dissociation for chronological epochs of the individual's life, or for certain particular episodes, or for certain specific knowledge, such as educational acquirements (mathematics, Greek, Latin, music, literature, etc., or knowledge of a trade or profession, and even of language). Amnesia alone, however, does not constitute alteration of personality strictly speaking; for a person may have complete loss of memory for certain specific experiences without true alteration of character. It is of important significance, as we shall see, that the dissociated or inhibited\* systems may include emotions, instincts and innate dispositions.

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\*Dissociation and inhibition are not coextensive terms for although inhibition implies dissociation, a dissociated element may not be necessarily inhibited as it may function subconsciously or independently of the personal consciousness.

Examination of recorded cases shows too that besides mental memories, physiological functions may be involved in the dissociation. Thus there may be loss of sensation in its various forms, and of the special senses, or of the power of movement (paralysis), or of visceral functions (gastric, sexual, etc.). Dissociation may, then, involve quite large parts of the personality including very precise and definite physiological and psychological functions. We shall see examples of these different dissociations in numerous cases.

As to the mechanism by which pathological dissociation is effected, it may be well to point out here that there is no reason to suppose that it is anything more than an exaggeration of the normal mechanism by which, on the one hand, mental processes are temporarily inhibited from entering the field of consciousness, and, on the other, physiological functions are normally suppressed and prevented from taking part in the psycho-physiological economy. (For instance, the suppression of the gastro-intestinal functions by an emotional discharge.) Every mental process involves the repression of some conflicting process; otherwise all would be chaos in the mind. And every physiological process involves some repression of another process. The movements of walking involve the inhibition alternatively of the flexor and extensor muscles according as which is contracted in the movement.

This principle is conspicuous in absent-mindedness and voluntary attention when every antagonistic or irrelevant thought and even consciousness of the environment is prevented by a conflicting force from entering the field of consciousness. In other words, every mental process involves a conflict and inhibition: in physiological terms a raising of the threshold of the antagonistic mental process in consequence of which it cannot function unless the stimulus be increased. This is a normal mechanism and process. The conditions which determine absolute and continuous dissociation or inhibition become the object of study.

By the second process, synthesis, particular systems of ideas with the conative tendencies of their feeling tones rise to the surface out of the unconscious and become synthesized with the perceptions, and such memories and other mental systems and faculties of the individual as are retained. Thus it may be that dispositions, sentiments and systems belonging to a particular "side" of the character—the amiable or the brutal, the unselfish or the selfish, the ungenerous or the generous, the practical or the idealistic, the literary or the business, the

religious or worldly, the youthful and gay, or the mature and serious, etc., to any side may become uppermost and be the dominant trait of the secondary personality. Or it may be that the systems of ideas, disposition, etc., belonging to childhood and long outgrown, but conserved nevertheless in the unconscious, may be resurrected and becoming synthesized with other systems form a personality childish in character. Or, again, sentiments, thoughts, dispositions, tendencies, instincts which, though intimately belonging to the individual, have been restrained, repressed, concealed from the world for one reason or another, may, being set free through dissociation from the repressing thoughts, rise to the surface and take part in the synthesis of the new personality.

In other words there is a rearrangement and readjustment of the innate dispositions and those deposited by the experiences of life which go to form personality. Some by the process of dissociation are expelled from the personal synthesis; some which had been previously expelled (repressed) by education, maturity of character, direct volition, and other processes of mental development are brought back into it.

It is obvious that when such rearrangements and readjustments have occurred the mental reactions of the individual will vary largely from what they were before. The reaction to the environment will become altered. When systems which give rise to the habitual modes of thought are dissociated, naturally the reactions of the individual will not be influenced by them but by those of the new synthesis, and the character will be correspondingly changed. Inasmuch as out of the great storehouse of the unconscious any number of combinations of systems may be arranged, it is obvious that any number of secondary personalities may be formed in the same person. As many as ten or twelve have been observed.

A study of cases which have come under my personal observation, and the reports to be found in the literature of those cases of multiple personality which have been studied with sufficient intensity and exhaustiveness, allow these general and preliminary statements, which are little more than descriptive of the facts, to be verified.<sup>3</sup> One

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<sup>3</sup>Unfortunately most of the reported cases were not studied from a genetic point of view and the reports are too meagre to afford sufficient data for a study of this kind. But in many cases the principles can be recognized. In the article "Hysteria from the Point of View of Dissociated Personality," *Journal of Abnormal Psychology*, Oct., 1906, I have given a synopsis in tabulated form of the reports accessible up to the date of publication.

of the best examples is the case of B. C. A. which I had an opportunity of studying over a long period of time, and to which reference has been frequently made. I shall first take this as the object of our study in psycho-genesis and afterwards that of "Miss Beauchamp," a descriptive account of which case has been already published.<sup>4</sup>

This subject has herself written at my request two introspective analyses of her own case, one by the normal personality and the other by the secondary personality. These analyses are of great value.<sup>5</sup> They give different versions of the same facts in accordance with the differing memories, knowledge and points of view of the differing personalities. The second also gives an account of the claimed co-conscious life as experienced by herself and unknown to the normal personality. We cannot do better than take them as a basis for a genetic study of the case and reproduce portions of them here. In this study I have made use, in addition to this material, of a large number of personal observations extending over five years, of numerous letters and analyses written by the subject at different times in her various phases of personality, of the memories in hypnosis, in which state many subconscious and dissociated perceptions and thoughts not otherwise remembered are brought to light, and of numerous analyses of her memories made on many occasions, at the expense of many hours of labor. Other sources of information have also been made use of. This investigation has resulted in a voluminous collection of records filling several large portfolios. In making the analyses and in many of the letters the subject, with extreme frankness and in the interests of psychology has gone in great detail into and has laid bare the most intimate facts of her mental life. This is true of each of the phases of personality, so that the point of view from which the same facts were seen in different moods has been obtained. This is a matter of no small consequence as the same fact often acquires a different aspect or meaning according to the view point of the mood in which it is experienced. A large amount of data pertaining to the inner life of the subject has thus become accessible. It is obvious that data of this sort are necessary if the psychological status of any given period of an individual's life is to be related to antecedent mental experiences as etiological factors. But this sort of data is that which usually is most difficult to obtain. Our inner lives we keep hidden as in a sealed

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<sup>4</sup>Morton Prince: *The Dissociation of a Personality*; New York; Longmans, Green & Co., 1906.

<sup>5</sup>Published under the title "My Life as a Dissociated Personality in the *Journal of Abnormal Psychology*"; Oct.-Nov., 1908 and Dec.-Jan., 1909.



book from the world. In all published reports of multiple personality these data are lacking, the studies dealing almost entirely with such facts only as were open to the observation of the investigator. It necessarily results from such a study of the inner life of a person living in the circle to which this subject belongs that many of the data are too intimate and personal for publication. However much one may be interested in science there is a point beyond which one shrinks from exposing one's self in print. I am, therefore, at many points very properly limited to the use of general phrases and summarizing expressions instead of explicit statements of particular facts which, I am aware, would be more satisfactory to the critic. This limitation cannot be helped, but is probably compensated for by the fact that, if it did not exist, the subject would be one whose introspective observations would be of much less value.

I will only add to this statement that the data were not collected in support of a preconceived theory or even of a working hypothesis, but only after they were gathered—in fact, after much of this material was forgotten—were they brought together and studied. It was then found that when the different pieces of evidence were pieced together they allowed of only one conclusion, namely, that which the subject herself in the main reached independently as the facts were laid bare and brought into the field of her consciousness by the means I have described.

By way of preface to the subject's introspective analyses I reproduce here the following remarks, which I wrote as an introduction to the "Life," but slightly expanded and with a few verbal changes to make the matter clearer.

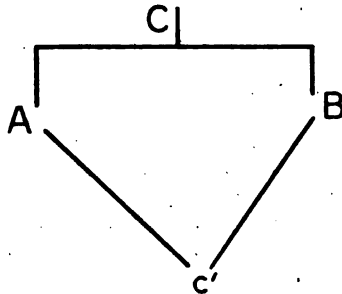
An account of the various phases of dissociated personality written by the patient after recovery and restoration of memory for all the different phases cannot fail to be of interest. If the writer is endowed with the capacity for accurate introspection and statement such an account ought to give an insight into the condition of the mind during these dissociated states that is difficult to obtain from objective observation, or, if elicited from a clinical narration of the patient, to accurately transcribe. In that remarkable book, *A Mind that Found Itself*, the author, writing after recovery from insanity, has given us a unique insight into the insane mind. Similarly the writer of the following account allows us to see the beginnings of the differentiation of her mind into complexes, the final development of a dissociated or multiple personality, and to understand the moods, points of view, motives, and dominating ideas which characterized each phase. Such an account could only be given by a person who has had the experience, and who has the introspective and literary capacity to describe it.

The writer in publishing, though with some reluctance and at my request, her experiences as a multiple personality, is actuated only, as I can testify, by a

desire to contribute to our knowledge of such conditions. The experiences of her illness—now happily recovered from—have led her to take an active interest in abnormal psychology and to inform herself, so far as is possible by the study of the literature, on many of the problems involved. The training thus acquired has plainly added to the accuracy and value of her introspective observations.

A brief preliminary statement will be necessary in order that the account as told by the patient may be fully intelligible.

The subject was under my observation for about four years. When first seen the case presented the ordinary picture of so-called neurasthenia, characterized by persistent fatigue and the usual somatic symptoms, and by moral doubts and scruples. This condition, at first unsuspected, was later found to be a phase of multiple personality and was then termed and is described in the following account as state or personality A. Later another state, spoken of as personality B, suddenly developed. A had no memory of B, but the latter had full knowledge of A. Besides differences in memory A and B manifested distinct and markedly different characteristics which included moods, tastes, points of view, habits of thought, and controlling ideas. In place, for instance, of the depression, fatigue, and moral doubts and scruples of A, B manifested rather a condition of exaltation, and complete freedom from neurasthenia and its accompanying obsessional ideas. A and B alternated during a long period of time with one another. After A, for example, had existed as a personality for a number of hours or days she changed to B, and vice versa. After the first appearance of B it was soon recognized that both states were only fragments, so to speak, or phases of a dissociated personality, and neither represented the normal complete personality. After prolonged study this latter normal state (C) was obtained in hypnosis, and on being waked up a personality was found which possessed the combined memories of A and B, and was free from the pathological stigmata which respectively characterized each. This normal person is spoken of as C. This normal C had, therefore, been split and resynthesized into two systems of complexes or personalities, A and B. Leaving out for the sake of simplicity certain intermediate hypnotic states, A and B could be hypnotized into a single hypnotic state which was a synthesis that could be recognized as a complete normal personality in hypnosis. All that remained to do was to wake up this state and we had the normal C. This process could be reversed and repeated as often as desired. That is C could be split again into A and B and then resynthesized in C and awakened to become C again. This relationship may be diagrammatically expressed as follows:



The various traits which characterized and differentiated the different personalities will appear in the course of this genetic study. With this introduction we will proceed to the latter.

## THE CASE OF B. C. A.

The first of the accounts above mentioned by the *normal* personality, C, written after recovery, is in the form of a letter. She had complete memory for both her phases A and B. It will be noticed in passing that this normal self speaks of the phases A and B as herself, transformed to be sure, but still herself in different "states." "As A, I felt" so and so, "as B, I felt" thus, etc. On the other hand, the secondary personality B, in her account, always refers to the other personalities as distinct personages, and uses the third person "she" in speaking of them. In this matter of differentiation of personalities B was very insistent, maintaining, as has been frequently noted in other cases, that she had no sense of identity of her own self-consciousness with that of the others. "I am, at any rate, a distinct personality," she remarks. In her consciousness there was no feeling that the self-consciousness of C and A was identical with her own, but the contrary. This frequent phenomenon presents a standpoint from which the problem of the "I" may be studied. What is it that determines the self-consciousness of an ego? We are not concerned with this old question at present, but it is worth noting that cases of dissociated personality offer a favorable material for the solution of the problem.

The following extracts from the accounts by "C" and "B" have been taken as a basis for our analysis which will further attempt to coordinate the two accounts and to clarify the psychological development of the case.

FROM ACCOUNT GIVEN BY THE NORMAL PERSONALITY C AFTER  
RECOVERY

MY DEAR DR. PRINCE,

You have asked me to give you an account of my illness as it seems to me now that I am myself and well; describing myself in those changes of personality which we have called "A" and "B."

It is always difficult for one to analyze one's self accurately and the conditions have been very complex. I think, however, that I have a clear conception and appreciation of my case. I remember myself perfectly as "A" and as "B." I remember my thoughts, my feelings, and my points of view in each personality, and can see where they are the same and where they depart from my normal self. These points of view will appear as we go on and I feel sure that my memory can be trusted. I recall clearly how in each state I regarded the other state and how in each I regarded myself.

As I have said, I have now, as "C," all the memories of both states (though none of the co-conscious life which, as B, I claimed and believed

I had). These memories are clearly differentiated in my mind. It would be impossible to confuse the two as the moods which governed each were so absolutely different, but it is quite another thing to make them distinct on paper. I have, however, been so constantly under your observation that you can, no doubt, correct any statement I may make which is not borne out by your own knowledge.

I am, perhaps, of a somewhat emotional nature, and have never been very strong physically though nothing of an invalid. I have always been self-controlled and not at all hysterical, as I would use the word. On the contrary, I was, I am sure, considered a very sensible woman by those who know me well, though I am not so sure what they may think of me now. I am, however, very sensitive and responsive to impressions in the sense that I am easily affected by my environment. For instance, at the theatre I lose myself in the play and feel keenly all the emotions portrayed by the actors. These emotions are reflected vividly in my face and manner sometimes to the amusement of those with me and, if the scene is a painful one, it often takes me a long time to recover from the effect of it. The same is true of scenes from actual life.

Before this disintegration took place I had borne great responsibility and great sorrow with what I think I am justified in calling fortitude, and I do not think the facts of my previous life would warrant the assumption that I was naturally nervously unstable. It does not carry great weight, I know, for one to say of one's self,—I am sensible, I am stable, I am not hysterical,—but I believe the statement can be corroborated by the testimony of those who have known me through my years of trial. The point I wish to make is that my case shows that such an illness as I have had is possible to a constitutionally stable person and is not confined to those of an hysterical tendency.

A year previous to this division of personality a long nervous strain, covering a period of four years, had culminated in the death of one very dear to me—my husband. I was, at the end of that period, in good physical health, though nervously worn, but this death occurred in such a way as to cause me a great shock, and within the six days following I lost twenty pounds in weight. For nearly three months I went almost entirely without food, seemingly not eating enough to sustain life. I did not average more than three or four hours' sleep out of the twenty-four, but I felt neither hungry nor faint, and was extremely busy and active, being absorbed both by home responsibilities and business affairs. The end of the year, (5 years after the beginning of my husband's illness,) however, found me in very poor health physically and I was nervously and mentally exhausted. I was depressed, sad, felt that I had lost all that made life worth living and, indeed, I wished to die. I was very nervous, unable to eat or sleep, easily fatigued, suffered constantly from headache, to which I had always been subject, and was not able to take much exercise. The physician under whose care I was at this time told me, when I asked him to give my condition a name, that I was suffering from "nervous and cerebral exhaustion."

*It was at this time that the shock which caused the division of personality occurred [resulting in Period III].*

Although this last statement is true so far as concerns the complete dissociation of personality which resulted in the birth of an inde-

pendent alternating personality, the first beginning of the genesis of that personality can be traced back to a far earlier period when she was about twenty years of age, that is to say *nineteen years before the final cleavage*. *These beginnings were an embryonic cluster or complex of rebellious ideas, "floating thoughts, impulses, desires, inclinations" and intense feelings which came into being at this early period in consequence of an emotional trauma.*

[It should be noted that the term "complex" is used in this study, not in the Freudian sense, but with the older and more comprehensive meaning of an organized *system* of ideas, affects, and innate and acquired dispositions.]

I propose to trace in the course of this study, first, the gradual growth by successive syntheses of this rebellious cluster with other idea-clusters during a period of fourteen years. This period I shall call Period I.

Second, its incubation, organization and segregation from the main personality during a second period of five years as a fairly well defined complex known as the *B complex*. This period I shall call Period II.

Third, the culmination of the incubating process and, as the result of an emotional shock, final bursting into flower of the B complex as the B personality. This period I shall call Period III.

Fourth, the reversion to the original personality, but now one so disintegrated, shorn and shattered by the segregation of the autonomous B complex and of certain instincts as to be a so-called secondary disintegrated personality, A.

Fifth, the alternation of these two strongly contrasted abnormal personalities.

Finally, the reintegration of the two abnormal personalities into one normal original personality, C.

In following the evolution of the personalities my main purpose will be to bring to light the psychological forces which brought about the disaggregation, on the one hand and the synthetic construction of the new personal systems, on the other.

The following characterization of Periods will be convenient for reference.<sup>6</sup>

Period I. From wedding to beginning of husband's illness (14 years) characterized by a group of rebellious ideas.

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<sup>6</sup>The division into periods follows that given in the second account by B.

- Period II. During husband's illness (4 years) and one year following (5 years), characterized by *B complex* and terminating with shock.
- Period III. Beginning with shock, characterized by *B personality* and terminating one month later by another shock in
- Period IV. Personality A plus B complex lasting one week, followed by
- Period V. Characterized by alternations of A and B personalities and lasting several years until reintegrated in original normal personality, C.

All these changes from Period I to IV inclusive were caused by emotional shocks awakened by a common factor in a closely associated situation. In period IV the A personality had no amnesia for personality B. This amnesia developed in Period V.

#### PERIOD I

The writer C in her account passes over the early first period, although she remembers clearly the historical facts and has given a very precise description of them in the many analyses which have been made and recorded. In the second account,<sup>7</sup> written in the secondary B phase of personality, she recognizes the embryonic emotional complex of this first period, and its genetic relation to the later *B complex*, and to her own still later developed *B personality*. "This complex" she wrote, "it seems to me is the same, though only slightly developed, as that which appeared later and is described as complex B. In trying to explain this condition, which it seems to me was the first start of what ultimately resulted in a division of personality, I will divide the time into periods, and I will call this period I." (This same division into periods I have thought it well to follow.) She also identified the ideas of this early complex with ideas and feelings which she still entertained and which formed a marked characteristic of her own dissociated (B) personality.

For the sake of clearness and simplicity of phraseology it will be well from now on to speak of the subject when in the dissociated B state simply as B, and when united in the normal state as C. In this way, as C points out, we shall avoid constant repetition and circumlocution in such phrases as, "when the subject was in the B state," etc. You must not, however, be misled by the connotation of terms and read into this nomenclature more than the psychological facts warrant,

<sup>7</sup>Journal Abnormal Psychology, Vol. III, No. 5, P. 311.

or make distinctions of personality which transcend in any way psychological laws. Dissociated and multiple personality are not novel freak phenomena, but are only exaggerations of the normal and due to exaggerations of normal processes, and it is for this reason that they are of interest and importance. For, being exaggerations, they accentuate and bring out into high relief certain tendencies and functional mechanisms which belong to normal conditions, and they differentiate mental processes, one from another, which normally are not so easily recognized.

They are caricatures, so to speak, of the normal. In one respect they may be likened to the staining of an anatomical specimen prepared for the microscope by which the various anatomical structures are brought out into strong contrast with one another and easily differentiated, like the boundaries of countries on a colored map. Without the staining all would have a homogeneous appearance and differentiation would be difficult. So, though a secondary personality is in one sense but a phase of the whole personality, it is characterized largely by an accentuation and determination of particular constituents to be found in the given normal everyday personality, and by the subordination or repression of others, both being effected by the exaggeration of the normal processes of dissociation and synthesis. In such a secondary personality these constituents and processes are easily recognized though they may be hidden under normal conditions. In saying that a secondary personality is a phase of the whole personality the latter term—whole personality—must be taken in the sense of including all the past experiences of life which have been organized, deposited and conserved in the unconscious, and all the instincts and innate dispositions of the individual. These past experiences form, as we have seen,<sup>8</sup> a storehouse of formative material which, for the most part, under ordinary conditions, may lie dormant though potential; but any elements of this material may, under special influences, be awakened to activity and, uniting with particular constituents of the normal everyday personality, take part under the urge of their own instinctive impulses and dispositions in the formation of a new personality. The remainder of the normal personality then becomes submerged and dormant in the unconscious.<sup>9</sup>

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<sup>8</sup>The Unconscious. Lecture IX.

<sup>9</sup>By the "unconscious" is to be understood the neurograms, or systems of acquired residua (brain dispositions), plus the innate psycho-physiological dispositions with which they are organized. By these systems, according to the theory of memory, experiences are conserved. They may lie dormant, or they may become stimulated into activity. In the latter case they may function subconsciously, or their conscious equivalents may enter consciousness.

To return to the evolution of the B personality. If this final phase be correctly traced back 19 years to the early antecedent rebellious complex above referred to, we shall see that the evolution of multiple personality in this case passed through several successive stages and was of slow growth. Speaking generally, it may, indeed, be ascribed, primarily, on the one hand, to the disruptive or dissociating effect of continuous *conflicts* between the opposing impulses of innate dispositions and instincts (emotions), and, on the other, to the gradual synthesization of the components of personality repressed by these conflicts into the subconscious. The secondary incubation of these repressed and other deposited experiences of life followed, with the final setting free of all this formative material, when fully matured, by the force, awakened by a trauma, of the conative emotional impulses belonging to it. The analogues of these phenomena and mechanisms are observed in sudden religious conversion which in principle is an alteration of personality.<sup>10</sup>

All the historical evidence at hand, derived from searching investigation, goes to show that at the early period to which I have referred (period I) the subject received an emotional shock, "which," B wrote, "it seems to me, as I look at it now, resulted in the first cleavage of personality. This emotion was one of fright and led to rebellion [in the form of rebellious thoughts] against a certain condition of her life, and formed a small vague complex [of thoughts and emotions] which persisted in the sense that it recurred from time to time, though it was always immediately suppressed."<sup>11</sup> And this vague complex of rebellious thoughts necessarily soon gave rise to and included other "floating thoughts, impulses, desires, inclinations," all of which the subject suppressed or endeavored to suppress during a long period of years. "This complex," she adds, as quoted above, "it seems to me, was the same, though only slightly developed, as that which appeared later, and is described as complex B." (P. 316).

The "shock" when more deeply analysed proved to be the excitation of certain emotions which, besides a mild degree of fright, were intense repugnance or disgust, and another affect which we will term X. The emotion of repugnance was so intense as to require considerable fortitude to withstand and gave rise to much agitation. It ac-

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<sup>10</sup>Prince, *Jour. Abnormal Psychology*. Vol. I, No. 1, 1906. Also, *The Dissociation of a Personality*, 2nd ed. Chap. XXI.  
James. *Varieties of Religious Experiences*.

<sup>11</sup>I. e., "Tried not to think of it"; "put it out of her mind as a disagreeable fact."



accompanied a cluster of "rebellious" ideas awakened by the realization of an unexpectedly disagreeable situation and relation. This cluster I shall call the *rebellious complex* to distinguish it from the later B complex into which it became constellated. This rebellious complex with the emotion of repugnance (instinct of repulsion) was of necessity frequently excited by the conditions of life and, therefore, of frequent recurrence, after the fashion of an obsession. After the first shock the fright naturally subsided, for one reason, from habituation to the conditions. The X affect, never experienced before, from the very first was repressed by the inhibiting force of the more intense emotion of disgust.<sup>12</sup> Fear also was involved in this repression, for there was a conflict between the opposing forces of conflicting emotions; and in such a conflict—as, for example, between fear and anger—the stronger tends to repress its antagonist and whatever it conflicts with. Consequently the recurring rebellious complex was habitually accompanied by repugnance alone. The exact constitution of this rebellious complex I am not at liberty to mention. It may have been a matter of mother-in-law, or of social arrangements, or particular duties and responsibilities, or something else—it does not matter and it is not necessary to say. It was a shrinking from a particular condition of her life. It was certainly not a wish unless this shrinking and "kicking against the pricks" can be twisted into its opposite as a wish to be free from the objectionable condition. Still less was it a morally unacceptable or intolerable wish, being just the opposite; for both the rebellious thoughts and the wish to be free from the condition objected to were acceptable and justified to herself in her mind, and, in her secret thoughts at least, tolerated as natural and reasonable<sup>13</sup> Nevertheless, as B. affirms, the rebellious thoughts were put out of mind, as of a disagreeable fact, as they arose from time to time; but this was only from a sense of duty in consideration of responsibilities undertaken. I could make this clearer if I were at liberty to enter into the details of these rebellious thoughts. Her life in every other respect was an unusually happy one, surrounded by all that one should desire, and included a devoted husband whom she loved, admired and respected. For these reasons alone she felt it a duty to suppress all expression of her rebellious feelings.

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<sup>12</sup>Instinct of repulsion (McDougall).

<sup>13</sup>Nor were they the reaction to or the expression of a previously repressed sexual wish as any such wish would have met no conscious resistance. It is easy to see in the light of all the facts that, given a certain change in the conditions, or point of view, there would have been no shock and no rebellion.

The main point, from the point of view of psychogenesis, is that at this early stage we have constantly recurring conflicts between the conative forces pertaining to emotions linked with sentiments of duty, loyalty, and affection, on the one hand, and those pertaining to the rebellious thoughts with corresponding desires, impulses, etc., reinforced with the emotion of repugnance, on the other. The former always won and the latter were inhibited or repressed into the unconscious. That such constantly repressed thoughts with their strong feeling tones should be conserved in the unconscious was a psychological necessity, and also that they should arise into consciousness from time to time like an obsession whenever stimulated by environmental conditions and personal. I may simply cite the two following simple examples.

The subject, governed by the maternal instinct, naturally loved to take care of her baby and "make things for him to wear, and fuss over them"; and yet there were "floating thoughts" of an opposite character which later, as will appear, emerged and became conspicuous in the B complex and B personality. "She was very fond of her father-in-law and did everything to make him happy," and yet there were other thoughts which conceived of him as a "fussy old bother." These again were represented later in the loss of sentiments of affection and in the point of view of the B phases. There was no real dissociation and doubling of consciousness; these conflicting attitudes and tendencies were, at least in the beginning until the later period of stress and strain when they eventuated in corresponding action, merely evanescent thoughts, wishes and impulses which easily passed out of mind, or an undercurrent of thought such as all of us have more or less.

Later, when they became more insistent and persistent, they had to be repressed by an effort of will.

Then it followed that C, conscious of these contrary impulses, reproached herself for them, thought herself wicked to have them, and when they became insistent repressed them. Their intrusion into consciousness was probably favored by a considerable degree of neurasthenia, for when she was ill they were more frequent and obtrusive, while with good health and happiness they disappeared, as is the case with all obsessing ideas.

The occurrence of such contrary impulses would probably have been of no account and nothing more would have been heard from them, as in the case of ordinary mortals, if it had not been for a

period of stress and strain which she was destined to undergo. As it was, the awakening of these contrary thoughts and impulses was fraught with a danger to the psychical unity, a danger that actually materialized, namely: as these conflicting impulses, being also rebellious against the conditions of life, were constantly awakened contemporaneously with the specialized frequently recurring "rebellious complex," the whole tended to become synthesized into a large complex which later, during the second period of stress and strain, became in turn the nucleus of a still larger complex (B). During this latter period, as we shall see, like the forces of a growing political revolution, the rebellious thoughts and impulses increased in number, frequency and intensity, until there were times when they acquired the mastery in the conflicts and repressed the previously opposing thoughts of duty, affection, etc., and dominated the personality. The effect of such intense conflict was to cause by repression a rift in the personality, i. e., to dissociate large system of ideas, (with their emotions) from other systems. All this will appear as we go on.

There is another point which it is interesting here to note. The secondary phase B looking back recognizes (i. e., has a sense of awareness) that the "rebellious thoughts" and the various contrary impulses were herself. "I was the rebellion;" "I think of the rebellion as myself;" "I was the rebellion which she kept to herself;" "The first complex formed a something I am;" "I think I am made up of all the impulses which began to come then;" "It seems to me, as I think of it now, that I was always there—sometimes more, sometimes less—in the form of conflicting impulses." In these and similar phrases B, over and over again, in numerous analyses at widely separated intervals, identifies these early conscious processes with her own individuality. Nevertheless, "I was not an *I* then, you know," she explains, "but to understand what I write you will have to call me so. I remember them now as my thoughts, but as that time I never thought of myself as a self." "I never thought, 'I' do not like this or that then; it was like an impulse in the other direction." Let it not be forgotten, then, that at the beginning the rebellious complex and impulses were not synthesized and segregated as an ego. Nevertheless, in fact, whenever she attempts to describe the early rebellious complex and the impulses she drops into the mode of saying, "I felt so and so," and finds herself obliged to use this personal pronoun when thinking of these past thoughts, and the same is true when she speaks of the more fully developed subsequent B complex.

You will say that there is nothing particularly remarkable or unusual in this. We all think of our past thoughts as our own. *But the unusual thing is that B—the subject in the B phase of personality—does not think of C's other thoughts or conscious experiences as her own.* In fact she persistently refuses to recognize these others as hers. She has no feeling of their having belonged to her own consciousness. "They were not my thoughts," she says. This is true of this other content of the conscious life of the early first period as well as of the later periods when the B complex and the B personality appeared. "*She liked,*" such and such a thing; "*I didn't!*" "*She thought,*" so and so; "*I didn't;*" referring respectively to the thoughts of the dominant consciousness and the contrary thoughts. "Yet in referring to the B complex," she writes of the second period (p. 315) "I find myself continually saying 'I;' it is difficult not to do so. This, I think, must show the intimate relation between the two. I think of the B complex and I find I think of it as myself, although I do not think of A and C as myself, and they do not seem to be my own personality."

This feeling by a secondary personality that certain conscious experiences belong, or belonged, to her own personal consciousness or ego and that others do not, or did not, belong is a common phenomenon in such cases and is of great significance. It is a phenomenon which justifies the inference that the relation which one system of ideas bears to that which we call the ego is different from that of the other system; it is a phenomenon, too, which must be taken into account in solving the problem of the ego. When we study the records of cases of multiple personality we find as a frequent observation that the secondary personality distinguishes between the conscious experiences which belong to itself and those which belong to the principal personality, and to other secondary personalities, if more than one. This differentiation is based upon the feeling of self-consciousness being attached to the former and not to the latter. It is not, therefore, simply a matter of the experiences occurring at different chronological epochs. Indeed the two different sets of experiences may be synchronous, one being conscious and the other coconscious.

I have passed over a question which is sure to be asked: Why did the unexpected situation, whatever it was, occasion the "shock" and the rebellious complex? I may say frankly that the situation was not one which would induce such a disastrous effect in the ordinary

individual. The answer is to be found in the principle of settings which give meaning to ideas.<sup>14</sup> Every idea over and above the sensory images which take part in its content has meaning; and the meaning is determined by antecedent experiences (thoughts, perceptions, feelings, etc.) with which it is associated, i. e., in which it is set. An idea of a particular individual, for example, has one meaning for one person and another meaning for another according to the associated mental experiences of each. These experiences form the setting or context which determines the meaning, point of view, and attitude of mind towards any given object or situation presented to consciousness. Whenever an emotional "shock" (one that is not a simple instinct reaction) occurs, this setting of antecedent experiences, organized with emotions, behaves as a sort of psychological torch which some later experience sets aflame, so to speak, as an emotional shock. It reacts in accordance with the emotions (fear, disgust, etc.) which the "meaning" includes. Now analytical investigation revealed settings to the "situation" dating in part from early childhood and in part from later experiences. An attitude of mind, therefore, already existed which was ready to react with the emotions (fear and disgust) which were excited by the meaning of the situation. It is easy to see, in the light of the actual facts, that if a certain factor of the situation had been altered, without altering the situation itself, its meaning would have been altered, i. e., it would not have awakened the setting built up by the experiences of life, and would not have excited the emotional response (shock) that ensued.

#### DISSOCIATION

But the organization of an emotional complex was not the whole effect of the shock. In addition, if the memories of B can be trusted—and I believe they can—there resulted in a minor degree a cleavage or dissociation of personality. This was not so pronounced as to give rise to noticeable pathological manifestations, but apparently sufficient to make at least a line of indenture, so to speak, which afterwards was easily broadened and deepened into a complete dissociation. This is not easy to demonstrate at this late date, but there are certain facts that have some evidential value.

In the first place, according to the evidence, there developed a tendency in what we have called the rebellious complex to take on

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<sup>14</sup>Prince: *The Unconscious*: Lecture X; also, *The Meaning of Ideas as Determined by Unconscious Settings*, *Jr. Abnormal Psychology*, Oct.-Nov., 1912.)

independent activity, or an automatism after the nature of an obsession, outside the domain of the will and self-control. No amount of reasoning or of self reproach sufficed to change the point of view. Like an obsession it would not down and recurred automatically.

In the second place, it seems, according to B's memories, that the activity of the rebellious complex of ideas began to take place to a certain extent outside the focus of the attentive consciousness, in the sense that the personal consciousness was not conscious or aware of their presence. This means that at times when the ideas in question were not in consciousness, and therefore might be supposed to be dormant in the unconscious, they recurred nevertheless and were in sub-conscious activity, i. e., were coconscious. This statement is based upon the interrogation of B who to the best of her memory thought that the "rebellious ideas were split off and went on by themselves while the subject C was thinking of other things, without her being aware of them." "They were coconscious as I know it now."

Too much weight should not be laid upon memories of this kind after such long intervals of time, and I would not be understood as doing so; but that the memories of this secondary personality may be given their just value it should be explained that, like some other secondary personalities, B's memory embraces not only the mental states (thoughts, perceptions, feelings, etc.,) of the principal personality which were within the focus of attention, but those which were in the fringe or margin of awareness and those which were entirely outside, i. e., fully subconscious. This has proved to be the case by numerous test observations and experiments. B might, therefore, remember split off (coconscious) rebellious states if they existed. One reason for this enlargement of the field of memory of this phase of personality is that besides being an alternating personality<sup>15</sup> she is a co-conscious personality. But this is another story which we shall have to postpone for the present.

In the third place, the constant invasion of the field of the personal consciousness by the contrary impulses, which I have already spoken of, suggest, if they do not indicate, a certain degree of automatic activity arising from the unconscious and dissociated from the rest of the conscious field. In the light of what has already been told and of later developments, to be described in the next lecture, the inference assumes a high degree of probability that these impulses

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<sup>15</sup>I use the present tense as more convenient although I am speaking of a past condition.

were manifestations of ideas and feeling tones belonging to an earlier period of life—childhood or girlhood—which had been conserved in the unconscious and which now erupted into the field of the personal coconsciousness.

I do not want to make too much of these early tendencies to dissociation nor is the matter important. For historical comprehension, however, it is desirable that the facts should be mentioned for, if our interpretation be correct, they were evidently steps in the evolution of the final disintegration.

Thus matters went on during this first period, covering a span of 14 years; sometimes the rebellious complex, enlarged and constellated with conflicting thoughts, desires and impulses, recurred with frequency, and sometimes they remained dormant for considerable intervals, the state of general health apparently often being the determining factor.

## LECTURE II

### THE EVOLUTION OF THE B COMPLEX

#### PERIOD II

At then end of the 14 year span—when the *second period* begins—the subject “received a great shock in the sudden illness of her husband. This illness was of such a nature that she knew no complete recovery was possible and that death might result at any time.” (P. 316). This second shock aroused once more the emotion of fright, and the old rebellion and a certain apprehensiveness, a trait which is inherent to a marked degree in her character. During the following four years which covered the illness of her husband she was almost literally torn to pieces mentally by this apprehensiveness—always anticipating the inevitable hanging over her.

After the first two weeks, when her husband’s temporary recovery took place, the same old rebellious complex returned with intensified force as the condition that gave rise to it returned. But she repressed all expression of it, resolved that no one should guess her secret because she did not wish to give pain to another. So she kept her secret to herself, and what she kept to herself became the *beginnings* of a new personality. “Then came the nervous strain of sorrow, anxiety, and care, and the inability to reconcile herself to the inevitable. This nervous strain continued for four years. C’s life during this time was given up entirely to the care of her husband;

she tried to live up to her ideal—which was a high one—of duty and responsibility, and always having the sense of failure, discouragement and apprehension." (P. 316). Necessarily she was cut off from the social world of gaiety by the care that devolved upon her or, considering her temperament, thought she was. A person of less intense feeling and governed by pure intellect quite likely might have reasonably arranged her life so that she could have both given all the care she wished to the invalid, on the one hand, and participated in the pleasures of social life, on the other. But, like many anxious wives and mothers whom all physicians see, her anxiety and feelings were too intense for such cool reasoning, her mind became single tracked and she shut herself off from the world she loved. Consequently, during this period of stress and strain the old rebellious complex not only became intensified and more persistent, but also became enlarged and systematized with a still larger cluster of rebellious thoughts. To the old rebellion there was now added a rebellion against the hardness of fate which was about to cheat her out of the happiness which belonged to her, and still more against the new conditions of life as she found them. This is what the incurable illness of her husband meant to her.

She rebelled bitterly, [B writes in a letter;] she *could* not have it so and it *was* so. No one knew what his illness was and she bent every energy to conceal his true condition. She blamed herself for his illness [in her ignorance of the pathology of disease], and after a time she began to have that sense of being double. More than anything else she wanted to be happy; she saw all happiness going and she could *not* let it go—it *must* not—she *would* be happy, and she *couldn't*. It was a fight with herself all the time. We were A and B then just as much as we are now. The part that afterwards became A doing all that a devoted conscientious wife could do, determined that her husband should never miss anything of love and care; and the part that afterwards became B rebelling against it all, not willing to give up her youth, longing for pleasure, and above all for happiness. To be happy, that was always the cry, and it was not possible.

It was a longing for conditions which in her mind seemed essential, and she could not accept the conditions as they were. "It was a rebellion, a longing for happiness, a disinclination to give up the pleasures of life which the conditions required; and there was a certain determination to have these pleasures in spite of everything, and this resulted in a constant struggle between C and this complex." It was that inability, which is so common and causes so much mental disturbance and unhappiness in so many people, to reconcile and ad-



just oneself to the actual situation of one's life and accept it. And here, in the case of B. C. A., we recognize in the center of the rebellion of this second period of stress and strain, the same thoughts which had cropped up evanescently during the first period but now become more intense and persistent, more disturbing and the fundamental cause of the inability to adjust herself to the situation.

These thoughts, however, were not tolerated by the subject and were put out of mind and *repressed into the unconscious by her right-mindedness*. It thus became a matter of conflict between the light-hearted gay sentiments and temperament of inexperienced youth which, in ignorance of life, finds it difficult to accept its serious responsibilities, and the sentiments of honor, duty, and affection which were the dominating traits. These facts are too intimate to go into in greater detail, but each one will probably recognize in himself some such conflicting desires and tendencies.

This is the place to point out certain major traits in the character of B. C. A. which enable us to recognize more clearly the source of the conflicting impulses and help to make intelligible their uprushes. There were two strongly marked elements in her character which had always been noticeable and which, given the appropriate conditions, were almost bound to come in conflict. B. C. A. during all her girlhood days and early married life was noted for her happy, buoyant, lively, light-hearted disposition. She was ready at all times for pleasure and could not bear to give it up, and she had an unusually intense desire to be happy; she loved happiness and wanted happiness, and when happiness dominated, as it generally did in a person of such a disposition, she was filled with the "joy of life." Responsive to her environment, when her surroundings were sympathetic all the joy and mirth of her own personality was given out and reflected upon others. She was of an intense nature in that she felt all the anxieties, sorrows, and joys of life with great and equal intensity. But it was joy and happiness which appealed to her as the one thing she must preserve. This was one of her character traits.

On the other hand the second trait was equally strong, namely, unreasonably high moral ideals, so high even in the little every day affairs of life that only a strong stern fanatic or ascetic could live consistently and perpetually up to them; she was intensely conscientious and high-minded with an almost inordinate sense of honor and duty; and there was also an overweening pride in her rectitude and moral

ideals which sometimes seems to have transcended common-sense; and there was pride in her pride. Reserved and rather unapproachable to strangers she was affectionate to relatives and intimates.

These two traits of character if analyzed would be seen to be two great strongly contrasted systems of ideas and sentiments<sup>18</sup> with their respective emotions and feelings. They formed two sides to her personality, and the conflicts that ensued could be said to have been between the two sides.

To say that these two traits or groups of traits—love of the joy of life and conscientious devotion to duty—were combined in one person is not of course to mention anything out of the ordinary. What was out of the ordinary was the intensity with which each existed. Now that she has recovered from her illness and has reverted to the normal synthesized personality these traits are still easily noticeable. None but a person of unusually strong, fixed character, capable of holding an ideal continuously in mind, subordinating all else, could have downed the cry for happiness and lighter pleasures of life. When we come to the secondary split personalities we shall see that the splitting was between these two traits; the elements of one gathering about itself associated elements, formed one personality with corresponding reactions to the environment, and the elements of the other in similar fashion formed the other personality. Thus stronger conflicts arose.

The recognition of mental conflicts as disturbances of personality and determinants of conduct is as old as literature itself. They have been the theme of poets, dramatists and fiction writers of every age. It has remained for modern dynamic psychology to study and determine with exactness the phenomena, discover the mental mechanisms involved and formulate the laws. One school, the so-called psycho-analysts, claims to find in practically all conflicts, a very complicated mechanism involving repression, unconscious processes (generally a sexual wish for the most part from infantile life) a "censor," a compromise, conversion and disguise of the repressed factor in the form of a psycho-neurosis, or other mental and physiological phenomena, substitution, etc. I have no intention of entering into a

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<sup>18</sup>By a *sentiment* is meant an idea about which are organized emotional instincts such as anger, fear, love, etc. The instinct through the discharge of its emotion provides the impulsive force which carries the idea to fulfillment. Thus a sentiment is more than an idea, it is idea plus emotion or feeling without which the idea would be relatively, if not absolutely, inert, lifeless.

discussion of the correctness of such mechanisms. The sole point I wish to make is that, even if so, to find such mechanisms and results to be universal is the *reductio ad absurdum* just as it would be to find that a conflict between a policeman and a resisting rioter is always carried out by a process which is manifested by a black eye and cracked skull, arrest, trial and conviction of the rioter. The process of the physical conflict may be simple or complex and be manifested and terminated in many ways. It may be carried out by and result in simple dissociation of the rioter from the crowd and sending him home about his business.

So with mental conflicts which may be manifested in many ways and have various results. I shall reserve for a later discussion some of these ways and results. One way and mechanism is, as in the latter example of the rioter, the simple repression and dissociation of the weaker factor resulting in the domination of the stronger, and the determination of conduct according to the impulses and tendencies organized within the mental system that has gained the ascendancy. But in maintaining social law and order we may have to deal, not with a single rioter, but with a mob or organized rebellion. Then the repression of the uprising may bring into action more memories and more systematized forces and may result in the repression of organized factions and an alteration of the social system. So mental conflicts may involve large systems and result in extensive rearrangements and repressions; in other words, an alteration with dissociation of personality. This was the mechanism and result in the case now under examination.

The conflicts were between the impulses or conative forces discharged from the emotions pertaining to youthful sentiments of pleasure and joy and play and ideas with exalting pleasure-feeling tones, all constituting wishes for the pleasures and happiness of youth—conflicts, I mean, between these forces and those of ethical sentiments of duty, with others involving the emotions of affection, anxiety, sympathy, admiration, and depressing pain-feeling tones. *For the time being, at least, the latter won and the former were repressed.* But they were still there, conserved in the unconscious, ready to spring to life in response to a stimulus at any favorable opportunity when the repressing force of the will power was weakened by stress and strain. So we see that the conflicting wishes and impulses which jarred and threatened the mental equilibrium of the subject were, after all, only

impulses or incursions from the unconscious of repressed antecedent mental experiences (wishes and conative tendencies) which were elements in the normal character.

Thus it came about that the original complex of rebellious thoughts against a *particular* condition had become slowly enlarged into a rebellion against *general conditions*, and *constellated with a number of specific wishes for pleasure (which were incompatible with her life) and the corresponding impulses into a still larger complex.*

It is this latter that we have called the *B complex*.

It had become evolved and organized out of the original "rebellious" complex as its nucleus by receiving successive accretions from later rebellious ideas and wishes in conflict with the personality, much as the pearl in the oyster grows by successive accretions.

From one point of view it was a highly developed "mood."

It was still under control but later, as we shall find, it was destined to assume autonomous activity and play a dominant role.

"C was still conscious of these thoughts," [B wrote in her account,] but they represented to her the selfish and weak part of her nature and she tried to suppress them; tried to put them out of her mind but they still persisted, and she was always to a greater or less extent aware of them. There was no lack of awareness and no amnesia. As the months and years went on the sorrow and anxiety of the C group increased, and the conflicting thoughts and *rebellion* of the B group increased. C was ashamed of the latter and always tried to suppress such thoughts as they arose. If during those years anything happy had come to C the formation of this rebellious complex would, I believe, have been retarded, perhaps stopped altogether, but nothing pleasant happened; it was all grief, and everything went wrong.

Notwithstanding the continuing stress and strain and lack of joy all probably would have gone well if C's husband had recovered and she had retained her physical health. Returning to her normal life, she would have been only one more of those who have lived through a period of anxious perturbation. But unfortunately, as it happened, "C's husband died suddenly away from home, the one thing she had [dreaded and] felt she could not bear." She received the news over the telephone.

She did not recover [B states] from the shock and became more and more nervous, was very much depressed, easily fatigued, suffered constantly from headache, and was possessed by all sorts of doubts and fears, reproaching herself for things done and undone. She also overtaxed her strength in attending to business matters. (P. 317).

C's physical health immediately and suddenly gave way. Her own account, already given, goes more into detail and lets us see the extent to which she was handicapped by physical and mental ill-health in her struggle against her rebellious impulses—against fate. She was not given half a chance. Her description of her condition may be repeated here:

I was at that time in good physical health, though nervously worn, but this death occurred in such a way as to cause me a great shock and within the six days following I lost twenty pounds in weight. For nearly three months I went almost entirely without food, seemingly not eating enough to sustain life, and I did not average more than three or four hours' sleep out of the twenty-four, but I felt neither hungry nor faint, and was extremely busy and active, being absorbed both by home responsibilities and business affairs. The end of the year, however, found me in very poor health physically and I was nervously and mentally exhausted. I was depressed, sad, felt that I had lost all that made life worth living and, indeed, I wished to die. I was very nervous, unable to eat or sleep, easily fatigued, suffered constantly from headache, to which I had always been subject, and was not able to take much exercise. The physician under whose care I was at this time told me, when I asked him to give my condition a name, that I was suffering from "nervous and cerebral exhaustion." (P. 242-3).

It is always the case in so-called neurasthenic states that the power of selfcontrol is weakened, resistance to obsessing thoughts diminishes and the latter tend to take on automaticity and invade and dissociate the personality. And there is also a certain degree of repression and dissociation of previously dominant systems of ideas. In other words every case of so-called neurasthenia and hysteria is a greater or less alteration of personality.<sup>17</sup>

Accordingly, although at the beginning of Period II, four years before, the B complex was only a loosely organized system of rebellious thoughts, wishes and impulses recurring from time to time, this system now began in her physically and mentally weakened condition to acquire increased force, to invade the personal consciousness, and breaking through the repressing force of the will to gain autonomous sovereignty and temporarily to dominate the conduct. In the prolonged conflict the rebellion with its contrary wishes was at moments to gain the ascendancy. In other words, these other elements came to the surface and gathered to themselves all the discordant elements of personality, much as a radical political party gathers to itself

<sup>17</sup>Hysteria from the Point of View of Dissociated Personality. *Journal Abnormal Psychology*, 1906.

all the rebellious discordant factions that are in antagonism to the governing conservative party. In one sense another side to the character had become crystallized and autonomous, and, through the intensity of its feeling tones, became periodically dominant. But not without protest from the previously dominant elements of personality. This protest however had certain psychological peculiarities which show that the conditions were not quite as simple as this. I will speak of them later.

Soon the repressed wishes, impulses—the B complex—began to manifest themselves in a way which indicated that a definite dissociation had taken place, although as yet, as I have said, there was no secondary *self* or *I* properly speaking. All the previous undercurrents of thought—the intensified shrinking from the particular condition of life, the internal rebellion against the conditions in general, the disinclinations, longings, wishes, and determinations—had become synthesized, and began to form a separate train of thought, so that at one and the same time there was a sense, as is so commonly felt in such cases, of a double train of thought; she had “a sense of being double.” It seemed to her, C, that there was “all the time a pulling in a different way from the way she had to go, a not wanting to live the life she had to live.” This “sense of being double” seems to have been so pronounced that to B, looking back upon it, it seemed as if these two trains of thought (the C personality and the B complex) “occurred concurrently and simultaneously, so that it could be said that one was coconscious with the other,” just as much as when there is loss of awareness on the part of the principal consciousness for the coconscious train. In this case there was, however, at this time, no lack of awareness and there is nothing to prove concomitance of different trains of thought rather than that the two trains did not rapidly oscillate or alternate from instant to instant.

The self-accusations and self-reproaches of the principal consciousness, C, rendered the pleasure impulses still more intolerable and tended the more to repress the rebellious train and thereby to disrupt further the personality and to crystallize the secondary synthesis. It became more than a matter of mental systems, the behaviour became affected and changed.

Corresponding to this invasion and domination of the ideas of the B complex the behaviour of C became altered, much to her amazement. That is, her conduct at times was governed by the impulses of her once repressed wishes and she found herself then doing things

which normally she had not enjoyed or done. Her health and strength also, at such moments, became extraordinarily improved.

This alteration of conduct and character and health became more obtrusive and characteristic at a later date when the B complex had become developed into the B personality. But the alteration of conduct can be easily recognized at these times if some of the previous minor characteristics of C in respect to this sort of behaviour are understood.

Among these characteristics were a great dislike of riding on electric cars, an almost abnormal nervousness about bugs and mosquitoes—I always disliked going into the woods for this reason—an aversion to exercise in summer, and a fear of canoeing. I had never enjoyed sitting out from under cover or on the ground as the glare of the sun was apt to cause headache and I abhorred all crawling things. I was reserved with strangers and not given to making my friends quickly; devoted to my family and relatives, fond of my friends, and not in the habit of neglecting them in any way. I felt much responsibility concerning business matters and had given a good deal of time and thought to them. Many more peculiarities might be mentioned. (P. 243).

In the B personality, as will be presently related, these and other traits were replaced by their opposites, but even at this time the complete reversal of her tastes and behaviour was obvious.

To my surprise [C states in her account] there were times when I did some of the things above referred to, such as sitting in the woods, etc. I felt a sense of wonder that I should be doing them and a still greater wonder that I found them pleasant. There was also a sense at times of impatience and irritation at being troubled with business matters or responsibility of any kind and an inclination to throw aside all care. I wondered at myself for feeling as I did and rather protested to myself at many of my acts but still kept right on doing them. It seems to me that these ideas and feelings formed a complex by which I was more or less governed and that this complex gradually grew in strength and can be identified with that of the personality (B) which first developed. (P. 243).

A more interesting account of this change of conduct is given by B:

*As she grew more and more neurasthenic, it seems to me as I look back upon it, the B complex grew stronger and more dominant, and with this increase of strength of this complex, C began to live a life corresponding to the impulses belonging to it—staying out of doors entirely—and then there followed much improvement in her health.<sup>18</sup> She took long rides on the electric cars, which she had always previously disliked*

<sup>18</sup>It is interesting to note the apparent paradox of an increasing physically neurasthenic phase coincident with an increasing physically healthy phase. With the subsidence of the latter the neurasthenic state became obvious.

intensively; she had always been very much afraid of a canoe, but now she went canoeing often and enjoyed it. She was surprised and astonished that she should enjoy these things, as it was foreign to her natural and previous ideas and inclinations. There was no change of character, properly speaking, but she did things she disapproved of and knew at the time that she disapproved of them. There was a recognition that she was doing things she would not previously have done, and she protested to herself, but even this half-protest was suppressed. She would say to herself, "Why am I doing these things? I never cared for them before. Why should I care for them now?" The old doubts and fears were at this time out of her mind. The personality was C, but influenced and dominated by the B complex of which, of course, she was perfectly aware. (P. 317).

What is here described is obviously a mood but a mood which included altered bodily as well as mental characteristics. The alteration of neurasthenic and healthy phases also became more obtrusive when the healthy mood became a personality. The apparent recovery then deceived the medical attendant.

In these quoted passages we have a description of the uprush from the unconscious and successful sovereignty of the conflicting B complex. Before continuing with our analysis two points are worth noting. First: with the winning of sovereignty by this system of ideas, the previously dominating system—or self—sank to an inferior position and assumed the protesting, one may say, the rebellious attitude. Like two adversaries in a wrestling conflict, in which first one then the other holds the vantage and each in turn yields before the superior force of the other, so it was turn and turn about, and now the rebellious complex becoming the victor, repressed the protests, the self reproaches, doubts, fears, and scruples of the regularly constituted government.

Second: With the eruption of the B complex into the C personality it is interesting once more to note the increase of physical strength, and improvement in the general health. It was thought by her physician that it was really a condition of health which had supervened but, as will be seen, this was far from being the case; it was one of psychological disintegration. Nevertheless with the one system of ideas—the B complex—there were associated all the mental and bodily reactions of health, with the other complex the reactions characteristic of the neurasthenic condition. This alteration was still more noticeable when the B *personality* erupted. The same phenomenon was observed in the case of Miss Beauchamp. With the appearance of the "Sally" complex all the neurasthenic symptoms



vanished, and the personality became buoyant with health. Identical variations in health have been observed in other cases of dissociated personality; one phase of personality being characterized by an extreme hysterical condition, another by freedom from such symptoms (Felida X., Marcelline R., and others). This phenomenon is of great significance for the understanding of the neurasthenic and hysteric condition.

### LECTURE III

#### THE B PERSONALITY

#### PERIOD III

Let us now return to C's account of the shock which occurred at this time, while the B complex was periodically dominant. It was the cause of the final complete dissociation of personality and the eruption of the secondary personality B.

The shock I received was of an intensely emotional nature. It brought to me, suddenly, the realization that my position in life was entirely changed, that I was quite alone, and with this there came a feeling of helplessness and desolation beyond my powers of description. I felt, too, angry, frightened, insulted. For a few minutes these ideas flashed through my mind and then—all was changed. All the distressing ideas of the preceding moments left me, and I no longer resented what, a moment before, had caused me so much distress. I became the personality which we have since called "B." I do not feel now that the episode was of a character that would have affected a person of a different nature, or even myself had I been in good health. Psychologically speaking, I suppose I was already in a somewhat disintegrated condition and therefore more susceptible. At any rate it did affect me. *From the moment of that shock I was, literally, a different person.* Even the episode itself now became of little or no importance to me; indeed I looked upon it rather as a lark and really enjoyed it, as I did, in this character, succeeding events. *With the change to "B" there was no loss of memory as sometimes occurs under such conditions.* It seems very curious to me that the effect of this shock was to change me not to the despondent, despairing mood of "A" which came later, but to the happy mood of "B."

In describing the two personalities I shall sometimes have to refer to them by the letters A and B to avoid the constant repetition of "myself as A—myself as B."

As B, I was, apparently, a perfectly normal person, as will be seen from the description which follows, except that I was ruled by the fixed idea that upon me, and me alone, depended the salvation, moral and physical, of a person who was almost a perfect stranger to me and who was the subject of a drug habit. I had known this person but a few weeks. This idea became an obsession; all else sank into insignificance

beside it; *nothing* else was of any consequence; I went to all lengths to help this person, doing things which, though quite right and proper, indeed imperative from my point of view as B, were unwise and unnecessary. I believed that I was the only one in the world who would stand by him; that every one else had given him up as hopeless and that his one chance lay in his belief in me.

The writer neglects here to say that it was not only as B that she had undertaken the "salvation" of the drug addict. As C she also shared in this solicitude and had begun the reformation. B only continued it but from different motives as later stated by C herself. B does not refer to it in her story apparently not taking it very seriously. Of course in my numerous interviews I heard an exhaustive account of the whole affair.

The marked change in health and strength for the better noted in those phases, during Period II, when the personality was dominated by the B complex and mentioned in the last lecture was still more accentuated now in the B personality. C thus refers to it:

With the change of personality, which will be clearer as you read, there was also a complete change of physical conditions. *Previously neurasthenic I, as B, was perfectly well and strong and felt equal to anything in the way of physical exercise.*

You will also remember that in the last lecture I spoke of certain minor traits which had been characteristic of C and which were markedly altered in an opposite direction under the dominance of the B system and induced impulsive alterations of behaviour. These changes were accentuated in the B personality from the very first as C goes on to describe.

The minor traits I have above mentioned were replaced by their opposites. A walk of three or four miles did not tire me at all; I tramped through the woods during the hottest days of summer, with nothing on my head, feeling no discomfort from the heat and no fatigue; I sat on the ground in the woods, hours at a time, not minding in the least the bugs and the mosquitoes; canoeing I was very fond of and felt no fear of the water. I also took long rides on the electric cars and found them perfectly delightful. These are small things but, as you see, it was a radical change and seems as strange to remember as the more important ones.

The change in the emotional and feeling tones, the former representing a different set of emotion-instincts, from those that were habitual, is illustrated in the following passage:

As B, I was light-hearted and happy and life seemed good to me; I wanted to live; my pulses beat fuller, my blood ran warmer through my veins than it ever had done before. I seemed more alive. Nothing is

stranger to remember than the vigorous health of B. Never in my life was I so well, before or since. I felt much *younger* and looked so, for the lines of care, anxiety, sorrow, and fatigue had faded from my face and the change in expression was remarked upon. I neglected my family and friends shamefully, writing short and unsatisfactory letters which left them in ignorance of my health and plans; business affairs I washed my hands of entirely. I lost the formality and reserve which was one of my traits. My tastes, ideas, and points of view were completely changed.

I remained in this state for some weeks, enjoying life to the utmost in a way entirely foreign to my natural tastes and inclinations as described above, walking, boating, etc., living wholly out of doors; and also doing many irresponsible things which were of a nature to cause me much distress later.

Some of this might, perhaps, be ascribed to improved health though different from anything I had ever been before.<sup>19</sup>

A point of considerable significance is the youthfulness of this B phase, a trait which the writer C notes and which B in her account emphasizes. When later the case came under my observation this phenomenon was so noticeable that it arrested the attention.

It may be interesting to hear B's description of the shock, more dramatically told than C's, and of the changes above mentioned of the personality (health, emotional tones, conduct, and youthfulness) immediately following.

It runs as follows:

At this time there came to C a third shock of a strongly emotional nature, giving rise to events which I call *period III*. It brought to her the realization of a fact of which she had been unconscious; she had never thought of the possibility of such a thing and she was startled, frightened, angry, all in a flash—and I was there. James, in explaining "Sudden Religious Conversion," speaks of a "flowering of the sub-conscious,"—well, I "flowered," and C disappeared somewhere; *the B complex had become a personality* and I lived a life of my own choosing<sup>20</sup>. How slowly this complex gathered form in this case may be seen from the fact that it was five years from the time of the beginning of her husband's illness before I came as a personality.

Now, when I came as a personality, I felt much younger than C; my ideas of what constituted pleasure were more like those of a girl of twenty—as C was when she received the first shock (*period I*). But in character, points of view, tastes, emotions, in everything that goes to make up personality I was quite different from anything C had ever been; also in health. I was strong and vigorous, taking long walks and feeling no fatigue. I was also very happy. Life seemed so good to me; everything was so beautiful; the outdoor world looked to me as it

<sup>19</sup>The same as when dominated by the B complex but in a more extreme way.

<sup>20</sup>That is, the remainder of the C complex subsided into the "unconscious," where, of course, its experiences were conserved. They could be recalled as a memory by B. As a system of ideas the B complex had been "flowering" for five years. (Ed.)

does to one who has been for months shut in through illness. I loved the trees, the sky, and the wind; but I did not love people. I felt no care or responsibility—that is why I was so happy. I remained the only personality for about *one month*, when there came the fourth emotional shock producing *period IV*.

These accounts need further explanation. C remarks: "It seems very curious to me that the effect of this shock was to change me not to the despondent, despairing mood of A, which came later, but to the happy mood of B." A consideration of the facts in more detail renders the reason obvious. It must be kept in mind that the dominant feature of the B mood or personality was the B complex, and the nucleus of this system of ideas was the "rebellion" I have described. This rebellion again had its first beginnings 19 years before (period I). We have traced it through the succeeding years, with its later accretions, growing and expanding in intensity and extent, like a political insurrection, until it had taken into itself a large field of ideas and became the B complex. Bear in mind here that the primitive germinal first rebellion was the reaction to an emotional shock in which fright and disgust as elements occurred plus the X affect. Now the second shock which was experienced at the third period was fundamentally the same in nature as that of the first period. It gave rise to the same *affect*, X, and mental awakening, to the same kind of realization of her situation, and the reaction, particularly to the affect, was the same rebellion. *But the rebellion had meantime, in the years that had passed, grown into the B complex, and so it was this B constellation of ideas which erupted into consciousness and dominated the whole field of personality.* Though the second shock awoke the same affect as did the original shock, it was consciously mild and probably for the most part subconscious, being repressed and submerged by the reacting emotions of fear and anger, which latter blazed forth. And in the reaction there were, also, the emotions of disgust and self-assertion and the vengeful emotion.

With such emotions, particularly anger and disgust; this affect was in conflict as was also fear. When two emotions are in conflict both cannot live; one will be suppressed. Fear will be suppressed by an outburst of blazing anger, and anger cannot exist when an overwhelming fear is excited. So the mild X affect and fear were immediately repressed by anger, disgust and the compound vengeful emotion, the three not in any way conflicting with one another but as allies reinforcing each other in the attack.

Consequently from the B personality, which sprang to life as the reaction to this affect, the X affect itself was completely repressed and dissociated, so that this personality is entirely without this and other traits of the C personality. Likewise, although this is not so easy to determine, owing to the impossibility of reproducing all conditions under which a given individual would react normally to any given emotion, fear seems to have been dissociated from the B personality. It is certainly true that B experienced no fear and other emotions with which C habitually reacted to certain situations. This question of the involvement of the emotions in dissociation will be discussed in another place.

As to the X affect, it is of some significance that later, after the development of the third personality, A, which alternated with B, this personality retained this affect (as well as fear and others lost to B) and the awakening of this affect in A would regularly change this personality to B; that is, repress the A personality and awaken B. Many times other emotions, particularly anxiety, (fear) would have the same effect, but the affect in question would always induce the change.

From one point of view it may be maintained that all this emotional reaction, called "shock," (that primarily called into being the B personality) was a defense reaction. It certainly was, as any outburst of anger may be a defense reaction, as it is in the bull in the ring of a Spanish bull-fight. Under other conditions anger as an element in the pugnacity instinct may, like other emotional impulses, be an attacking reaction.

But labelling with names does not give us any insight into the mechanism of a reaction any more than labelling a machine an automobile gives us any idea of its mechanism. It gives only a teleological meaning to the machine.

What is a fruitful question, however, is whether the "shock was a defense to an external aggression or to the urge of an unacceptable subconscious *wish* containing the repressed affect X. Some will *wish* to make this latter interpretation. It is entirely incompatible, however, with the fact that the same conflict and "shock" had previously occurred under conditions when, even if there had been such a wish, it could not have been unacceptable, as there was no reason therefor, but on the contrary it would have been her duty to have fulfilled it. It is useless in this case to work that trumpety affect business in this way.

Furthermore, as a matter of experience, we have cases of multiple personality that after two ideas have been formed, almost any emotional stimulus causes the displacement of one system and the substitution of another system. This was observed over and over again in the case of Beauchamp, as it was in this case. Why it should be so obvious at the time of any given occurrence. That there is a psychological reason and dynamic mechanism we cannot doubt. Undoubtedly if we could probe sufficiently extensively into the unconscious in each instance we should find that subtle associations in the substituted systems had been struck and the change determined by this stimulus. When the associated element is organized with strong emotions the discharge of the emotion more easily represses and dissociates the rival conflicting systems. This gives the appearance that it was the emotion alone, as an isolated factor, which induced the alternation of personality:

What happened then when the change of personality took place was this: The acquired B complex, which had been developing in content and conative intensity, surged up as a reaction from the unconscious (where it had been conserved during the normal mood in a dormant condition), came into conflict with the A mood and repressed and replaced this previously dominating side of her nature. By this dissociation this side was put out of commission so to speak. In turn it remained dormant, of course, conserved as unconscious neurograms, ready to be resurrected under favoring conditions by appropriate stimuli.

But in the formation of the B personality there was more than this; otherwise there would not have been generated a personality; the alteration would have been limited to the incursion into the field of consciousness only of the B complex as had so often happened before. On the one hand a larger synthesis took place. The B complex dragged out of the storehouse of the unconscious the acquired and conserved ideas and other experiences of childhood and girlhood that had an associative relation to the system which formed the B complex.

On the other there was, as we shall see, a dissociation of certain innate dispositions, instincts and sentiments belonging to normal personality. Specifically the most important of these were, the instinct of self-abasement and its self regarding sentiment, the "tender emo-

tion" (affection) and its parental instinct, the X affect and its instinct, fear (instinct of flight) and vengeful emotion.

The emotions and their instincts and the innate dispositions, appetites and tendencies, being psychophysiological arrangements inborn in the organism and not acquired, are the very foundations of human personality. Without a recognition of them and without assigning to them their proper parts and due weight in determining mental traits and behaviour alterations of personality cannot be explained or understood.<sup>21</sup>

The justification for the interpretation I have given of the genesis of the B personality is found in an analysis of its manifested characteristics. In the first place this B phase by common consent, even in the opinion of those who were in entire ignorance of what had psychologically occurred—i. e., the alteration of personality,—was much younger in character than the mature C. She appeared to be a young girl of 18 or 19 years of age. Her friends spoke of her, when remarking on her improved health, as "being as she used to be." She looked younger.<sup>22</sup> As I myself observed her on, I might almost say, hundreds of occasions, the contrast between the actual age of the subject and the apparent age of B as indicated by expressions of face, the vivacious mannerisms, the girlish attitude of mind, points of view, tastes, etc., was remarkable.

All this together with the lack of appreciation of many of the responsibilities of life and of the duties and conditions which pertain to motherhood, social relations, and conventions, made up a picture of youth that was unmistakable. The contrast between the mature C and the girlish B became almost dramatic when the change of per-

<sup>21</sup>The science of human personality is becoming a special branch of psychology and is based upon the recognition and study of the innate psycho-physiological systems of which a few are mentioned here. Of the most recent works on this subject, those of Alexander F. Shand (*The Foundations of Character*) and William McDougall, (*Social Psychology*) are the most important contributions. They are based on the study of normal behaviour. Abnormal alterations, such as are met with in the psychoses and multiple personality, will prove to be a more fruitful field for study and will provide more valuable contributions to our knowledge of normal mechanisms, just as the pathology of the nervous system has done for our knowledge of its anatomy and physiology. Disease dissects the mind far better than can introspection or observation.

<sup>22</sup>In a letter written in the phase A to me she writes: "B seems to revert to the time before all the sorrow and trouble. She writes in the diary [kept at my direction by the different personalities] as I used to feel. She 'won't be unhappy;' she 'will have a good time,' etc. She seems younger than I, somehow. I find that my friends often think me more 'like myself,' when B is here; she also spends money as I used to and will not acknowledge the necessity of economizing. . . ." In another letter she writes; "Then came the time when I was wholly B. Everything but my own pleasure was cast to the wind. I felt and acted like a girl of 18, and I know that I *looked* years younger than I do now."

sonality took place suddenly as it later frequently-did in my presence.

When we come to analyze the traits which gave this impression of youth we see that it was justified. One side of C's character, as we have seen, was a love of happiness and the pleasures which induce the joy of life. This side was dominant in B; but the *kind* of pleasure which appealed to B was not only that which appeals to youth but that which had particularly appealed to the subject when a young girl. It was "tramping through the woods in the hottest days of summer," canoeing and rowing in boats, walking, riding in electric cars—in fact, the out-door life that appealed to her most strongly and was her greatest enjoyment. "Oh, wouldn't I just love to tramp through the woods or sail off over the waves, or anything exciting," she wrote. Such of these things as she had been able when a little girl to indulge in she then enjoyed. As a child and during girlhood she liked camping out and sailing, but as she grew older, say about sixteen or eighteen, she became afraid of the water and row boats. Canoeing she had never done before her marriage and then was afraid of it.

We have seen that childhood's experiences are conserved in the unconscious (neurographic residua) although they may never come to the surface of consciousness unless resurrected by some device or accident. Accordingly in the case of B everything points to the conclusion that the conserved sentiments, with their organized emotions and feelings, of the pleasure of childhood and adolescent life, sentiments by which the young girl was governed, were resurrected. The play-instinct, or innate disposition, long repressed, particularly was revived and played a large part in determining behaviour. The re-arrangement of this and other innate dispositions will be more conveniently discussed later in connection and contrast with the A personality.

Of course there is no sharp line of division between different periods of life, one running into the other, and the ideas, sentiments, desires, habits, etc., of one period may continue more or less unchanged well into another and beyond. So obviously we cannot ascribe with precision to a past definite age traits of character of the kind we are considering. Such traits belong to the evolutionary development of the individual; they tend to become modified by the clash with new experiences, and, when incompatible with the knowledge and habits acquired by new experiences, to become repressed—when not incompatible they may persist late into adult life. So some of these traits have persisted as a side to, or as elements in the char-



acter of B. C. A. into her present life; some, however, have been modified or repressed into the unconscious. As age advances, as the child passes into adolescence and then into maturity, there comes wider knowledge of the facts of the environment, of its dangers and other relations, a more true and complete conception of the meaning of life, a more extensive world view, and a recognition and assumption of duties, cares, and responsibilities. And all these acquisitions tend to form a conscious organism with new sentiments which give new acquired reactions to stimuli in place of the old reactions, (traits and other conative tendencies). Activities, for example, which before received their impulses from play dispositions are later inhibited by sentiments invested with the instinct of fear (flight). So B. C. A. acquired a fear of the water (boats, canoeing) and a dislike of bugs and mosquitoes and electric cars. Why these changes in her mental reactions took place we cannot say without making a more extensive search into the experiences of her past life, and the information when acquired would hardly repay the time and labor of the inquiry. We cannot say, for example, why she has disliked electric cars without resurrecting the memories of past experiences pertaining to them and other associated ideas. Perhaps the dislike arose simply out of the noise and resulting discomfort and headaches; or it may have had a more subtle cause in associated ideas of danger which would not appeal to a girl, or possibly such objects may more subtly still be the symbolic expression of some unconscious process. It does not bear upon our present problem. (The dislike of mosquitoes and bugs very probably arose from having been bitten and poisoned badly by them when a child).

There were certain other youthful traits and tastes in B which are worth mentioning. This personality was extravagant in money matters. "She," the personality A wrote, "spends money as I used to, and will not acknowledge the necessity of economizing." That is to say, the regulation of the household and personal expenses, according to the requirements of business sense, and proper appreciation of the financial management was scarcely recognized by B who desired to spend money as B. C. A. had done as a girl, before being initiated into the responsibilities of domestic management. Like such a girl, to the discomfort of the other personality, she spent money as if all were pin money, without appreciation of making ends meet in the management of the household.

Another and what will seem a strange peculiarity of B was the

feeling that she was not the mother of her child. "I am not his mother," she would say. "He is not my son"—"I never was married." "I know all her experiences," she wrote me in a letter, "but they are *her* experiences not *mine*. Why! *I* was never married, Dr. Prince, and *I* am not Willie's mother. All those experiences belong to A. I know she *had* them, but then, so do you. The only difference is that I know exactly what she thought about them." Indeed she carried this so far as to entirely neglect the responsibility of looking after his life. This was true also of the time when B. C. A. was ruled by the B complex before the change to the B personality. On one such occasion for example, she allowed this young boy to take a long journey of many hundred miles through the west, roughing it in the woods and canoes, without a care or anxious thought on her part during the whole time he was gone. All the arrangements were made by others while she herself did not even go to the station to see him off. Previously she had always felt the greatest motherly solicitude for the boy, even foolishly devoted to him, and could not bear to be parted from him even to accompany her husband on a journey.

This peculiar trait is easily understood on the theory that rebellious B was largely a systematized resurrection of pre-marital complexes and in fact dissociations of the tender emotion (parental instinct). I have already pointed out that B regarded the "rebellious" complexes as herself, but not the other ideas of B. C. A. In referring to the former, as I have said, she used the word I, saying, I thought so and so, but she did not use such expressions regarding the other systems of B. C. A.'s thought after the genesis of these rebellious complexes. Likewise she regarded as her own the earlier youthful experiences before dissociation occurred. In the constellation of her complexes none of the experiences of maternity (which occurred after the development of the rebellious complex) were synthesized, any more than the sentiments and other conflicting thoughts of the A phase. Even in the embryonic contrary impulses of the B complex, it will be remembered, there were dislikes to "fuss" over the baby conflicting with the maternal instinct. She never, therefore, felt that motherhood was a part of her own experience.

I said that the parental instinct with the emotion of tender feeling was dissociated. This absence of tender emotion (affection) was also manifested in her attitude towards the different members of her family and her friends. As a girl she was markedly affectionate just as A and later C was, but as B she had lost this trait. She neglected

her family most shockingly, in a way that showed complete absence of the impulses that come from tender feeling, and without the slightest compunction or recognition of the fact that she was wanting in affection. I might give numerous specific instances of this but refrain from doing so for obvious reasons.<sup>23</sup> B liked people but for other reasons than those which depend on personal affection. This absence, then, of the tender emotion with its impulses was the second factor in determining the feeling that B had of not being the mother of her child. It also, of course, prevented the building up a new sentiment of maternal affection through experience. All this is in conformity with our interpretation.

The way other instincts and innate dispositions were affected will be better described in connection with the A personality for contrast.

Another peculiarity of B was the change in literary taste. The lighter reading in which B found pleasure contrasted strongly with the literature dealing with the deeper problems of life that appealed to A. This difference has been touched upon by C in her account. It would take us too far afield to enter into the psychological reasons for it.

It remains to point out that the reactions of the personality in accordance with the new synthesis were intensified and became the sole reactions by the fact of the dissociation of those systems of ideas which represented the wider world view and which were organized with instincts and innate dispositions now inhibited. Those systems were the outcome of the cares, anxieties, responsibilities, and sorrows of later life. All these, which were acquired and had their origin at a comparatively late period, had subsided into the unconscious and ceased to influence the conscious life and give rise to their corresponding reactions. The emotions and sentiments of anxiety, remorse, self-reproach and despair, so conspicuous in the A phase, were com-

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<sup>23</sup>C writes: "To me this point of the affections is one of the most interesting and curious. As a child and young girl I was affectionate, shy, proud, and reserved—everything that B was not. I positively never had in me any of these traits that B exhibited during those weeks . . . except gaiety."

This statement, when analyzed, is in entire agreement with the results of our study. The absence of affection is what would be expected from the loss of the primary emotion "tender feeling," the affective element in the parental instinct. Shyness is determined by the instinct of self-abasement which was dissociated from B. Likewise with the self-regarding sentiment of pride in one of its varieties, self-respect. According to McDougall this comprises two instincts; that of self assertion with its emotion of elation, and that of self abasement with its emotion of subjection. The latter instinct we have seen reason to conclude was inhibited in B. Hence on this theory of pride, this sentiment was lost.

pletely dissociated from the B phase and formed no part of it. Though there was no amnesia for them as past experiences they were dissociated in the sense that they did not take part as psycho-physiological dispositions in the personality. They could be voluntarily recalled in an intellectual way as memories, but like most memories they had lost their emotional tones and were not awakened by any contemplated or actual line of conduct. Not entering the new B synthesis there was no clash by which the reactions might be modified. The sole reactions were, therefore, those of the B synthesis and were mostly those of pleasure and joy. You must not overlook the fact, however, that the dissociated elements of personality were still conserved and, as we shall see, capable of being resurrected and thereby taking part in the reproduction of the original personality, or of forming by themselves another dissociated one.

The *temperament* of the B personality is in accord with the conception of a modified reversion to the conserved unconscious personality of early life. B. C. A. "was naturally very light-hearted, happy, buoyant." Later when going through the stress and strain of her husband's illness, and later still after becoming neurasthenic, she became apprehensive and given to self-reproaches, worry, and depression. She was racked by emotions of an anxious depressing kind. All this was enormously accentuated in the secondary personality A, (to be presently described) whom in banter I used to call "Mrs. Gum-midge." Now B reverted in temperament to the earlier period; she was free from depression; "had more courage, was light-hearted, merry; conditions did not seem so dreadful as they did to A," and she "took things as they were;" "this was the way she used to be."

If I may anticipate a little the development of the A personality, a passage or two from letters will show this difference in temperament as manifested by the emotions. B wrote, "A is nearly crazy about those papers. She simply 'tears her hair' and groans, and then, presto! change! and I am here." Again in a note to her other self (A) she writes; "I suppose you have a 'deep-horror-then-my-vitals-froze' expression on your face now. Really, you suffer more to the square inch than any one I ever knew." Although it is hardly fair to ascribe these emotional traits of A—a disintegrated personality—to the normal C, still they were and are at times noticeable in C as moods, or when under stress and strain. (C of course has pleasant affects and joyous moods as well). B on the other hand was a perfect stranger to such feelings; she did not know the meaning of them;

they were completely dissociated from her ideas. B's sole emotions were those of pleasure and exaltation; C's emotions included unpleasant and depressing ones as well, while A's stock was made up almost entirely of the latter. This dissociation of unpleasant and depressing emotions from B is well manifested by her memories. When C (or A) recalled (and it is still true) an unpleasant experience the memory was accompanied by the original emotion in its full intensity. She lived over again the original experience and manifested all the feeling in the expression of her face and in gesture. But when B recalled this same experience of C (or A) she simply remembered it intellectually as a fact, without the feeling tone. In fact she would recite a painful fact of C's experience with a gayety of tone that betokened enjoyment at the other self's expense. The same phenomenon was still more striking in B as a coconscious personality.<sup>24</sup> As a coconsciousness she always insisted that while she knew C's (and A's) thoughts she did not feel her emotions. "You see I know all that A thinks but I do not *feel* her emotions; she is all emotion," she wrote. This she insisted upon again and again. She only knew what the other personalities felt by the way they acted. Similarly the affect which was the cause of the "rebellion" was dissociated from B. This same phenomenon was observed in the case of Miss Beauchamp. Sally as a coconsciousness knew the thoughts of the personal consciousness (B I or B IV) but she was not aware of the feelings that accompanied the thoughts; the feelings she could only guess from the actions of the principal personality, and as an alternating personality Sally likewise was entirely devoid of certain emotions which were strongly accentuated in the other personalities.<sup>25</sup> This dissociation of affects from B helps us to understand the difference in the reactions of B, C, and A to the same stimuli.

## LECTURE IV

### THE A PERSONALITY

#### PERIOD IV

We may now return to C's account of her dissociated life—to the point where she was about to describe the development of another personality, A, and at which I digressed.

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<sup>24</sup>B later became coconscious with the other personalities as well as alternating. This phenomena of the case will be discussed in another study.

<sup>25</sup>The Dissociation of a Personality; pp. 150 (?).

Bear in mind that it is the B personality that now received the shock and that the revelation of the deception, therefore, was to a personality whose point of view was not that of duty or affection but of mere joy and pleasure.

After a period of a few weeks I received a second<sup>26</sup> shock, which was caused by the discovery of deception in matters<sup>27</sup> which my "obsession" had taken in charge. The revelation came in a flash, *a strong emotion* swept over me, and the state B, *with all its traits, physical characteristics, and points of view disappeared, and I changed to another state which we have since called A.* In this state my physical condition was much as it was before the first shock,<sup>28</sup> that is, I was neurasthenic. From a state of vigorous health I instantly changed to one of illness and languor; I could hardly sit up, had constant headache, insomnia, loss of appetite, etc. My mental characteristics were also different. As before, however, there was no amnesia either for the state when I was B or for my life before the first shock.

Now, though as A I was filled with most disproportionate horror at what had occurred during the weeks of my life as B, I was ruled by the same obsession, but with this difference: what I, as B, had done with a sense *pleasure*, I, as A, did with a sense of almost horror at my own actions, feeling that I was compelled to do so by what seemed at the time a sense of *duty*. I felt that I must carry out certain obligations, and I doubt now, as I afterward expressed myself to you, if I could have resisted had I tried. [i. e. she was again governed as formerly by the B complex]. I would not refuse the demand for help which was made upon me because, as B, I had promised my aid, but in complying I was obliged to do things which seemed to me, as A, shocking and unheard of. I felt that my conduct was open to severe criticism but I had promised and must fulfil though the skies fell. It seems to me now, in the light of our present knowledge of B, that I, while in this A phase, was in a sort of somnambulistic state governed by what I have learned were coconscious ideas belonging to B; and that the impulses of the B complex were too strong to be resisted; but in my memory my ideas as B were at this time so curiously intermingled with my ideas as A that it is useless to try to analyze my mind more accurately. In mood, points of view and ideals I was A, but I *did* the things B would have done, though from a different incentive.

To fully appreciate the situation and in that light the meaning of A's point of view in the preceding passage and in that which follows, we must remember that, when the original personality B. C. A. was suddenly changed by the preceding "shock" to the B personality, for a few minutes the subject was angry, frightened and felt insulted. There can be no doubt that if the change had not occurred she would

<sup>26</sup>Fourth according to the division of periods here adopted.

<sup>27</sup>Money matters.

<sup>28</sup>Second which brought the B personality.

have resented any further continuance of friendly or philanthropic relations with the object of her resentment. When she came under my observation later as A, she was overwhelmed with (unjustified) humiliation and blazed with wrath at the mere thought of the episode. Her governing feeling was vengeful emotion. Even as the normal C she could not forgive or forget.

Now imagine the scene: a person dominated by such feeling suddenly, without apparent rhyme or reason, completely changing in her feelings and point of view, regarding the episode as a lark, enjoying it and smiling and happy. And then in this frolicsome mood continuing to play for a month with the object of her previous wrath. Such a scene on the stage would be a most dramatic one. Imagine what must have been the bewilderment of the victim.

Then, after some weeks of this play, the B personality changes back to the disintegrated self A. As A she remembers what she has done as B in complete contradiction to her previous feelings and views of the episode, herself and the object. She is overcome with horror on remembering her behaviour (as B) and yet she finds herself ruled by a fixed idea of the B complex and going on doing, but from a different motive, the very things which had horrified her.<sup>29</sup>

Keeping this situation in mind we can understand A's feelings and viewpoint bearing in mind that all was morbidly exaggerated.

For a few days I remained A and then owing, I think, to a lessening of nervous tension, I changed again to B [personality] and remained in that state for two or three weeks during which time I was physically well and happy again. At the end of this time, as a result of another realization of the actual situation, A reappeared and was the only personality for some weeks. These changes were due to successive emotional shocks.

The following passage which continues A's viewpoint accurately describes her state of mind when she came under my observation.

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<sup>29</sup>Apropos of this B states: "I still continued, in a sense, as the B complex in the same way as during the time when C lived the life which was in accordance with my nature and opposed to hers, i. e., the out of doors life during the latter part of the second period; only, as a result of the time (*period III*) when I was the sole personality (though I did not think of myself as such) and had lived my own life, I had, it seems to me as I look back upon it, becomes more crystallized. There had before seemed to be a conjoining of two natures, and there was now, only the second one, myself, was more strongly integrated. C., or rather A, as I shall call this new phase, had no amnesia for the preceding period (*III*), and as before was still perfectly aware of the B complex. She was ruled by this complex, as C had before been ruled, and kept right on doing things in accordance with the impulses of the B complex. She was something like a somnambulist, I think, partly realizing the difference in her conduct, which seemed strange to her, and unable to help herself."

When you first saw me I was A at my worst. I had no amnesia for the events of the preceding months when, as B, I had been filled with the joy of living. There was no thought on my part of any "change of personality"—I had never heard of such a thing—but I was like one slowly awakening from a dream. I was equally aghast at what I (B) had done for *pleasure*, and at what I (A), had done from a sense of duty; one seemed as unbelievable as the other.<sup>30</sup>

One of the most shocking things to me, as A, was the fact that I had *enjoyed myself* as B. Had I committed the most dreadful crimes I could not have felt greater anguish, regret, and remorse. I had been dominated by the fixed ideas and obsessions of B; I had felt that I *must* respond to any call for help made by this person [the drug-addict] even though it was against my inclination and judgment to do so; there seemed no choice for me in the matter—I *had* to;<sup>31</sup> I could see no point of view but my own. To do what seemed my plain duty I was willing to sacrifice myself in every way, but could not see that I (A) was now causing as much anxiety to my family as I had previously done as B; that I was sacrificing them also, and that my idea of duty was entirely mistaken. A, it would seem, was the emotional and idealistic part of my nature magnified a thousand times. My emotions and ideals as A were not different in *kind* from those of my normal self, but were so exaggerated as to be morbid.

As A I was full of metaphysical doubts and fears, full of scruples. I did not attend church because I felt that I could no longer honestly say the Creed and the prayers. The service had lost all meaning to me and so it seemed hypocritical to take part in it. I felt that I had utterly failed in the performance of every duty, and tortured myself with the remembrance of every act of omission and commission. I accused myself of selfishness, neglect, in fact, of nearly all the crimes<sup>32</sup> in the calendar including, in an indirect way, that of murder. My conversation was always of the most serious character,—religion (I believed in nothing), life after death (of which I found no hope), and I dwelt much upon the fact that no one should be judged by their deeds alone, that no one could tell what hidden motive had prompted any given act. This was because I had (as B) done so many things which (as A) I wholly disapproved of and felt might be misunderstood. I did not understand them myself but knew that my motive had been good. I was frightened, bewildered, shocked, agonized—concentrated anguish and remorse. During these weeks I suffered more than it ought to be possible for any one ever to suffer for anything, and always, over and over in my mind went the same old thoughts,—*"Why did I do as I did? How could I have done it? Why did it seem right? What would my friends think if they*

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<sup>30</sup>At this time A had removed from the environment in which all this that has been narrated had taken place, and had come under my care; she was then A. There were no longer calls for duty to be performed, no longer responsibilities to carry out. B was dormant and it was impossible for the fixed idea to act, though undoubtedly if the former situation was restored the old parts would have been re-enacted; as it was she looked upon the past as a closed chapter and she was able to judge herself as A and B. In the quiescence of her fixed idea she was able to see herself, though in a distorted perspective, and reprobated her conduct in both phases of personality, and as she says, was "aghast."

<sup>31</sup>Referring to the fixed idea mentioned above of saving this person.

<sup>32</sup>Referring to her husband's illness and death.



knew? I was mad! *I was not myself.*" Finally I decided to end it all—I could not live under such a weight of humiliation and self-reproach. I am sure, Dr. Prince, that you must remember how impossible it was to reason with me as A, for it was at this time and in this state that I was sent to you and you first saw me.

Summing up this statement a new personality had come to the fore—a personality that was the antithesis of B. The traits which characterized A had been left entirely out of B while those which had characterized B were left entirely out of A. Both sets of traits were to be found in C though less accentuated and less freely manifested. The gaiety, love and pleasure and joy of life, the absence of all thought of responsibility and care belonging to B had given place to seriousness, a sense of responsibility and duty, a feeling of apprehension, to doubts and fears and self-reproaches. Depression and sorrow had taken the place of exaltation and joy. The neurasthenic state had replaced buoyant health.

Now it should be noted that these latter were the traits of the subject of C during the preceding four year period of stress and strain, and the succeeding neurasthenic period, and represented a side of her character which was developed, systematized and intensified by the circumstances of her life. In accordance with these traits, habits of thought had been established and by constant repetition complexes had been built. It is of importance to note that it was against these very A traits that the B complex at that time had rebelled—that very complex which was to become the centre of the B personality, and which was the other side of her character. It was during the neurasthenic state that the A traits had become abnormally developed and belonged to the neurasthenic condition. When the personality changed to B these A traits became dissociated but still remained conserved as unconscious systematized neurograms; now the A traits were awakened once more, there was a conflict and the B traits, the lighter side of her character, were repressed, dissociated and subsided into the unconscious. A was, therefore, a dissociated personality. She was the original C, if you please, but now so shattered and shorn as to be but an abstract and wreck of her former self. The normal C possessing both sets of traits had been, and now, resynthesized to health, is able to compare, to weigh, to modify, to balance the judgments obtained from the point of view of the B system with those of the A system and thus keep a fairly equitable poise of mind. The one counteracted the other fairly well. The A and B phases being respectively deprived of the characteristics of the other, each exhibited its own

traits in a highly intensified degree, and manifested excessive reactions to the environment. The dissociated state A was plainly a reversion to the stress-and-strain and neurasthenic period. The awakening of A was the awakening of a system of thoughts which had lain dormant during the B state. Now the repressed B state was dormant.

It is of great significance for an understanding of neurasthenic disturbances that the awakening of the A system brought back all the neurasthenic symptoms that had as physical reactions accompanied this system at the time when it was dominant in C. The A system of thoughts, emotions, instincts, innate dispositions, etc., and the physical symptoms necessarily went together, for the latter are the expression or reaction of a dissociated personality that is deprived of its sthenic and exalting emotions. The moment the sthenic emotions were brought back (in C or A) the physical symptoms disappeared. The disappearance of the neurasthenia even in A when certain emotions were temporarily restored by suggestion was remarkable.

What caused the awakening of the A system? We have seen that the awakening of the rebellious B personality was an emotional trauma which was the same in kind as that which originally gave rise to the primitive "rebellion" as a reaction to the emotion. A similar trauma later awakened the same rebellion but one grown to the large proportions of the B complex. So in like fashion the new trauma to B awakened the A system as a reaction and associative phenomenon. What was the new trauma?

C in her written statement does not give the nature of the "strong emotion which swept over" her when the "revelation came in a flash." It was very different in character from the other. It was *apprehension*—the apprehension of moral disaster to the person whom she was trying to save. There was no resentment at the discovered deception, no thought of wounded self, no feeling of injury as might be inferred from the language of the writer, but only the thought of her own *responsibility* in the circumstances, and of *duty* undertaken, and the feeling of *anxiety* for the future of this other person; and there was a sense of *disappointment and failure*. These erupted from the A system.

It was this same system of ideas, but organized about her husband as their object, which had been dominant in C during the four years period of stress-and-strain and "neurasthenia." They had lain dormant in the unconscious during the B period. Now they are struck and excited to activity. There is a conflict. The impulses

from the conflicting A emotions, being the stronger, repress the B impulses and the A system is awakened as a personality.

The question at once comes to mind whether the object of B. C. A.'s solicitude was not a surrogate for her deceased husband, a sort of symbol, and had not become the object of the transference (to use the language of the psycho-analysts) of the solicitude which had previously been bestowed upon her husband's health and future well being; whether this new person had not been substituted for the ill husband in that A system of ideas which during four years had been characterized by responsibility, duty, anxiety, disappointment, failure, etc.; whether, indeed, it might not be held that the solicitude for the salvation of this drug addict was not a defense reaction against self-reproach for an imaginary responsibility for the illness of her husband. Such self reproaches she describes.

If this were true, the awakening of the A system by the discovery of the deception (which was only the banal one of money matters) and realization of failure, disappointment, etc., would be all the more comprehensible in view of the very strong and close associations which the new object would have in the system. But if true I cannot see that it would have any further or deeper significance. There was no need for disguise. Certainly solicitude for a husband, disguised in another person, needs no disguise and could not be unacceptable. But painful *self-reproaches* for former failure could not be faced, and satisfaction could be found in the performance of a new duty as a sort of atonement.

Again was there any subconscious sex wish or urge that could not be admitted to herself and to which the change to A was a defense reaction? I have been unable to discover any. And if there were I am unable to see how the revelation of deception in money matters required a defense reaction against the fulfillment of this wish. That sounds like Alice in Wonderland.

But why did the revelation shock B, who with her traits would not have cared? I can answer this from my intimate and fuller knowledge of C's and A's ideas. It was a revelation of the truth. The true character of the object of their solicitude, "whom everyone else had given up as hopeless," was revealed in a flash, and this "revelation" had struck, not B, but the submerged A (or C) system, which immediately emerged in an uprush from the unconscious. The shock was not to B but to subconscious A. And the reaction was

"disappointment," "failure," "apprehension," etc. Similar phenomena have been observed over and over again in psychological studies as I have frequently witnessed them in this case.

In a previous lecture<sup>33</sup> I called attention to the fact that emotions (instincts) innate dispositions and tendencies are fundamental to personality and I pointed out that in abnormal alterations the dissociation may involve one or more of these. Certain of these innate psycho-physiological systems were cited as having been repressed or dissociated in this case. It remains to study this phenomenon a little more closely.

Psychologists are generally agreed that of the emotions some are primary, or elementary, and others are complex, that is compounded of two or more emotions. Fear and anger, for example, are primary and the conscious elements, like all primary emotions, in biological instincts. These instincts serve a purpose in the preservation of the species. Of the complex emotions scorn and loathing may be taken as examples, the former, it is believed, being compounded of anger and disgust and the latter of fear and disgust. There is not a general agreement in regard to all the emotions that should be regarded as primary. Joy and sorrow, for example, are classed by some as primary and by some as complex. I made an effort to note and classify in a tentative way the emotions that were present and absent in the two personalities A and B and have arranged them in the following table. In this table the classification of the primary and complex emotions of McDougall has been followed in the main.

Of course it is very difficult to determine with certainty if any given emotion is absolutely absent, as it depends upon suitable conditions being present for its excitation. An emotion that is repressed might still be excited if the stimulus were sufficiently strong. Still, it is significant that emotions which would ordinarily excite a given emotion, say, tender feeling, or sorrow or fear, in the ordinary normal person, or did do so in this subject in the A personality, did not do so in the B personality, or would awaken in the latter only an emotion of joy or mirth. Under these circumstances, when the A and B personalities respectively came into being, these differences were easily observed, and it is noteworthy that then certain emotions were never in evidence in each respectively, whether potentially present or not.

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<sup>33</sup>Lecture III.

It is interesting to note that when a primary emotion was absent, for instance in personality B, that a compound emotion which included this primary emotion was also absent. It is obvious that dissociation of personalities in which certain emotions are repressed offer valuable data for studying the problem of the classification of emotions, more reliable than do the usual methods of introspective analysis.

#### PRIMARY EMOTIONS, INSTINCTS, FEELINGS AND INNATE DISPOSITIONS

	A Personality	B Personality
Anger	Present (marked)	Never observed, although sometimes she felt "provoked"
Fear	Present (marked)	Never observed
Disgust	Present (marked)	Never observed
Hunger	Slight	Absent (?)
Sexual	Present	Absent
Curiosity	Present	<i>Present</i> (marked)
Joy	<i>Absent</i> (Present only when excited by suggestion)	<i>Present</i> (marked)
Sorrow	Present (marked)	Absent
Parental, Tender-feeling, Affection, etc.	Present	Absent
Self-assertion — Elation	Present (in pride)	<i>Present</i>
Self-abasement — Subjection	Present (marked)	Absent
Play	<i>Absent</i>	<i>Present</i> (marked)
Pleasure-feeling tones	Rare	<i>Constant</i> (marked)
Pain-feeling tones	Present (marked)	Absent

#### COMPOUND EMOTIONS

	A Personality	B Personality
Admiration	Present	?
Reverence	?	?
Gratitude	Present (marked)	?

Scorn	{ Anger Disgust	Present (marked)	Absent
Loathing	{ Fear Disgust	Present (marked)	Absent
Envy		?	?
Reproach	{ Anger Tender- emotion	Present	Absent
Jealousy		Present	Absent (?)
Vengeful emotion		Present	Absent
Shame		Present	Absent
Bashfulness		Present	Absent
Pity		?	Absent
Happiness		Absent	Constant

As there were differences in emotions and pleasure-pain feelings manifested by the two personalities, so also the emotions and feelings organized with the same objects differed. That is to say, one and the same object often awakened different emotions or feelings. For example, the moon excited in A pain, in B pleasure; woods excited in A apprehension, in B pleasure; a lake, in A fear, in B joy; relatives, in A affection, in B indifference. Situations, too, that gave A sorrow, gave B joy, or, it might be, pleased A and bored B. Likewise with persons: Y—aroused intense hatred, scorn, ect., in A; in B pleasant feelings.

To return to the behaviour of the B and A personalities; the B system, from the fact that it had become for a month, during the third period, segregated as an independent and autonymous system, had become crystallized and easily dissociated as *a whole* from the remainder of the personalities. The same happened with the A system after it had become emancipated as a result of the fourth shock. The two systems readily changed with one another and I had innumerable opportunities of observing the changes taking place before my eyes and of studying them. C makes the following statement of these alternations.

Shortly after I came to you I began to alternate more frequently between those two states, and it is well to emphasize that one marked change in the state of A developed. In this state I now had *complete*

*amnesia* for my whole life as B; for everything I thought and did.<sup>34</sup> In other respects, however, these states were identical with what they had been. The presence of *amnesia* made no difference in the fact of change of personality. As I see it I was just as much an altered personality before the *amnesia* developed as afterward. As B, I had no *amnesia*.

The *amnesia* made life very difficult; indeed, except for the help you gave me I think it would have been impossible and that I should have gone truly mad. How can I describe or give any clear idea of what it is to wake suddenly, as it were, and not to know the day of the week, the time of the day, or why one is in any given position? I would come to myself as A, perhaps on the street, with no idea of where I had been or where I was going; fortunate if I found myself alone, for if I was carrying on a conversation I knew nothing of what it had been; fortunate indeed, in that case, if I did not contradict something I had said for, as B, my attitude toward all things was quite the opposite of that taken by A. Often it happened that I came to myself at some social gathering—a dinner, perhaps—to find I had been taking wine (a thing I, as A, felt bound not to do)<sup>35</sup> and what was to me most shocking and horrifying, smoking a cigarette; never in my life had I done such a thing and my humiliation was deep and keen.

The bearing of *amnesia* on the principle of multiple personality, perhaps, needs a few words. From the facts as they developed in this case it must be obvious that the presence or absence of *amnesia* in no way affects the reality of altered or secondary personality. B was quite as much a personality before the development of *amnesia* as afterwards. Before this appeared the patient as A in no way differed in characteristics (other than *amnesia*) from what she was afterwards, and the same is true of B. The *amnesia* simply made the contrast between the phases more obtrusive; that was all. If, therefore, following the *amnesia* each phase can be rightly interpreted—and of

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<sup>34</sup>This came about in the following way: One day while A was in hypnosis she suddenly and spontaneously changed to a different hypnotic state characterized by change of facial expression, manner, speech, etc. It was afterwards recognized that this was the B personality in hypnosis. I had not before seen or heard of the B personality as such. I had only known that the subject from her own account had been in a neurasthenic condition and had been through periods of improvement and relapses. I did not suspect that these phases of improvement and relapses represented phases of personality such as was soon discovered to be the case. A few days after the B personality had appeared in hypnosis this phase spontaneously waked and alternated as it had previously done, with the A complex. But now, as the writer says, there was *amnesia* on the part of A for B. The explanation for this is undoubtedly to be found in the fact that a new synthesis and more complete dissociation of the B complex had taken place through the experience of hypnosis. Analogous phenomena I have observed in making experimental observations but it would take us too far away to enter into this question here.

<sup>35</sup>During the first weeks of my existence as B I pledged myself to drink no wine. The promise was made under such conditions that no reasonable person could have felt bound by it. As B I realized this and felt no obligation to keep it but as A, I could not feel so, though you had assured me over and over again that I was not in honor bound.

this there can be no doubt—as a dissociated personality, the same must be true of it antecedent to loss of memory. Each phase had lost and gained certain traits and peculiarities, and what one had lost the other, to a large extent, had retained.

An analysis of the previous life history shows that each represented a constellation of mental complexes created out of the formative matter of the past conserved in the unconscious. On the other hand it is obvious that from another point of view each, before amnesia occurred, was rightly entitled to be considered as a highly developed “mood” with strong conative tendencies. In principle the amnesia does not affect the point of view. One frequently sees in lesser degree such moods in so-called normal people of a certain temperament. They are in fact really temporary alterations of personality, though it is not customary to speak of them as such. After amnesia develops the conditions in other respects are in no way changed. If such alterations of personality are combined with a neurasthenic condition it is customary to regard the phase as one of neurasthenia or hysteria, and, in fact, the state A was for a long time so regarded until the other state, B, was discovered.

It is not within the scope of this study to describe in detail the behaviour of the two personalities A and B. Enough has been said to show that they differed in character so widely as to appear to be two entirely distinct persons, with contradictory traits, desires, feelings, points of view, habits, manners, temperaments, and attitudes towards their environment and towards each other. Alternating as they did, the situation in which A, at least, was placed were often dramatic and comparable to that of the case of Miss Beauchamp<sup>26</sup> with which some of you may be familiar.

A good general idea of the two personalities and their behaviour has been given by the subject herself in the two articles from which I have freely quoted. For further details I would refer you to those accounts<sup>27</sup> which merit careful study.

Nor can I take up that phase of the problem of dissociation which involves *coconscious* systems of thought. It is too large a subject and must be reserved for a later occasion. I will merely say that when A became *unaware* of the *B complex* and became amnesic for her alternating life as B, the latter, B, continued during the A phase; or, in other words, the *coconscious* life was a continuation of

<sup>26</sup>Prince: The Dissociation of a Personality, Longmans, Greed & Co.

<sup>27</sup>My life as a Dissociated Personality, *Journal of Abnormal Psychology*, Vol. III, Nos. 4 and 5.



the B alternating life after the change took place to A (or C), but the latter was unaware of it.

This seems very difficult to comprehend for those who are not familiar with the phenomenon. Yet, as I see it, the mechanism and principle are very simple and the phenomenon is only an exaggeration of the normal. Otherwise and without a normal mechanism it could not occur. B has also given in her account a very valuable description based on introspection of the coconscious life. This merits careful study.

In later lectures we will study the psychogenesis of the different personalities in the case of Miss Beauchamp. In the published account of this case this aspect of the problem was not included but was postponed for a later occasion.

#### REINTEGRATION OF A AND B INTO A NORMAL PERSONALITY C

You probably will have sufficient curiosity to want to know how the reintegration of the dissociated phases into a single normal personality was accomplished: that is to say how a cure was brought about and the original personality was obtained. It was very simple and can be told in a few words. The method was the same as that employed in the case of Miss Beauchamp.

Each of the dissociated personalities A and B could be hypnotized. When A was hypnotized she went into a state which we will call *a* and when B was hypnotized she went into a state which we will call *b*. Now both these states could be still further hypnotized. When the process of hypnotizing *a* was carried further a state was obtained which we will provisionally call *x*. When the process of hypnotizing *b* was carried further a state was obtained which we will call provisionally *y*. Now, when studying these two hypnotic states, *x* and *y*, they were found to be the same state. That is to say they had the same memories and other traits of personality. Furthermore they were found to be a combination of both *a* and *b*, possessing all the memories, emotions and innate dispositions which were lost in A and therefore possessed by B and all those that were lost in B and therefore possessed by A. In other words, it was the complete normal personality but in the hypnotic state. This hypnotic state, therefore, which had been previously labeled both *x* and *y* was now labeled *c*. All that remained to do, therefore, was to wake up *c* and the trick would be done, for we would then have, theoretically, the normal C personality. So this procedure was carried out and the normal personality was obtained.

## APPENDIX

And now after this serious and, I fear, dry analysis, may I end with a bit of fun—with some verses which I borrow (without permission but with profuse thanks, in advance) from our esteemed contemporary "Punch" who under date of February 24, 1909, printed the following apropos of the B. C. A. case, the subject of our study.

## A AND B

(In the *Journal of Abnormal Psychology* is described the case of a lady who, owing to nervous strain and shock, became two different personalities which suddenly alternated with each other. The two states she called A and B. As A she was a pattern of propriety; as B she enjoyed doing what she knew would annoy herself as A.)

A. Whenever I am A  
The perfect saint I play;  
My virtues are noted,  
And I am devoted  
To doing good works all day.  
My spirit stands aghast  
At anything that's fast,  
And I shrink from the host of  
Bad people who boast of  
A purple and lurid past.

A proper and prim young girl,  
A hair-very-trim young girl,  
A chaste, unemotional, highly devotional,  
Terribly grim young girl.

B. Whenever I am B  
I am the very D,  
Delighted in joking  
And cigarette smoking  
And having a rare old spree.  
I dance the night away  
In haunts that are bright and gay,  
And joyfully revel  
In playing the devil  
And shocking myself as A.

A giddy and glad young girl,  
A boisterous, mad young girl,  
A daring, high-kickery kind of Terpsichore,  
Almost a bad young girl.

A. A highly correct young girl,  
An ultra-select young girl,  
A pink-of-propriety, Dorcas-society,  
Most circumspect young girl.

B. A very alert young girl,  
A cheeky and pert young girl,  
A rackety, rollicking, merrily frolicking,  
Bit-of-a-flirt young girl.

A. An omnibus-ride young girl—

B. A straddle-astride young girl—

A. A strict Sabbatarian—

B. Thorough barbarian—

A. & B. Jekyll and Hyde young girl.

## A DIVIDED SELF

BY CHARLES E. CORY

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**T**HE following is a brief report of a case of dissociation. It has some features of interest to students of abnormal psychology. I shall refer to this divided self as A and B. Although A has been changed in some ways by the dissociation her memory is continuous with the original self. B is a secondary personality.

A is a woman twenty-nine years of age, the fifth of a family of six children, all living. The father was fifty-six at the time of his death. The mother is still living. The mother's side is negative. The father, an habitual drinker, committed suicide. One brother has reputed "psychic powers." A, while not robust, has no organic trouble. As a child she was very emotional, high-tempered, and much older in manner than her years. She has never had any serious illness. Her height is five feet, and she weighs eighty-one pounds. This is seventeen pounds under her maximum weight. At present she is a saleswoman, and is considered a good one.

B's appearance as an alternating self began about three years ago. The change was, at first, accompanied by brief trauma. This has now disappeared, and the change is generally made without disturbance. The transformation produces a marked change in the face and bearing. Respiration is deeper, and goes from eighteen to twenty. The body is slightly flushed, and the eyes are brighter. The expression of the whole face is altered. Her manner is vivacious and aggressive. The timidity of A is replaced by the utmost confidence and self-assurance. Although A may have been fatigued no trace of it will be seen in B. Indeed I have never known B to show any signs of weariness. After A has come home utterly exhausted, too tired to eat, B has come, eaten a hearty dinner, and enjoyed the evening. This new influx of strength is, in itself, a nice study, and affords further evidence of James' and Sidis' doctrine of various levels of energy.

The cause of the dissociation was, undoubtedly, a shock which A received from the tragic death of her father. A loss of coördination followed this event, and for a while she was hardly able to walk. It was, as she says, "Like learning to walk again." At this time hal-

lucinations began to appear. Further, according to B's statement, it was at this time that she secured partial control of the body. The behavior of A, from that time, shows noticeable signs of instability. She was subject to moods of extreme vanity, and occasional bits of conduct which were to her, at the time, inexplicable, such as, without intention, getting out of bed and going through weird dances. Many things occurred during the years that followed that now clearly show that a well-organized subconscious complex was formed, and that, at the time, it exerted a dominating influence. It was not, however, until A was twenty-six that she learned of B's existence, and then what little she knew was shrouded in mystery. I give A's own account of the incident. "One evening while alone in the house I was seated at the piano, and it seemed like something said to me, 'take a deep breath,' and a sound of singing came from me that I had never heard before, and it frightened me. Just before the song I shuddered as if something had possession of me. I went to the kitchen to get a drink then, and I asked mentally who that was that sang, and I got the name ——." It was several weeks, however, before B learned, to use her expression, "to get completely out," or to submerge A, and take full possession of the body. Since that time they live as alternating selves. If A is abstracted B may appear. Generally A's consent is required, but sometimes B will catch her off her guard and be "out" before she knows it. Much as she desires to come she has a dread of meeting awkward situations, and as a result of this fear she leads a very restricted life. In the immediate household A's mother is the only one that has seen her. For a year A was completely mystified by the strange appearance. B had announced herself as the reincarnation of the soul of a Spanish woman, and this claim was, in a way, accepted by A. After hearing a voice that was not her own, and singing in a tongue that, as we shall see more fully later, she could not understand, what else was there for her to believe? Thus neither A nor B thought of themselves except as completely separate personalities, A assuming that B on occasions took possession of her body. In this she was confirmed by some spiritualistic friends who became greatly interested in her. B's own idea of herself, that is her belief that she was a returned spirit, was also, of course, encouraged by this atmosphere. Over this coterie of believers B exerted a tyrannical influence and in every whim she was indulged.

Each, if interested, is conscious of, and remembers what the other does. When subconscious A plays the role of an onlooker, but

is powerless to determine B's conduct. Frequently conversations are carried on between them. In this case an inner voice expresses the thought of the self that, at the time, happens to be subconscious. B when subconscious may, if she chooses, profoundly influence A, whereas A as subconscious leaves B comparatively free.

A is a bright cultivated woman, of a good family, and when young had all the advantages that money could give her. B is older in manner, more dignified and serious. She has read Sally Beauchamp, Prince's Volume on the Unconscious, and several works in the field of abnormal psychology. These she reads with ease and understanding. She also expresses herself with great clearness. She is acquainted with my own analysis of her case, and has helped in every way she could. Yet notwithstanding her ability to follow a psychological analysis, after a full statement of the case she retains unmodified her conviction that she is a reincarnated spirit, and that she lived and died long ago. What seem to her to be memories impose themselves upon her, and prevent her from *feeling* that any other explanation can be true. A, however, now understands enough of the case to know that B is a dissociated self, and much of her past life, hitherto strange to her, has become clear.

One of the interesting things about this case is B's speech. Her English has a marked foreign accent, and has had from the first. The accent is Spanish. Now at no time in her life has A studied a foreign language, nor has she ever been intimately associated with Spanish-speaking people. Not only does B's English have an accent, but at times she speaks automatically in a "tongue" that is made up entirely of fragments of Spanish, with traces, possibly, of Italian. She also writes it automatically. When spoken it is generally accompanied with imagery and strong emotion. B was amazed when she first learned that she could not translate it into English. I here give a sample of this "speech." It was written automatically.

"El spir desemenarsa Maria Rozell Rosa si exusadosa los almos los limasa los immundosa Palaisa Rayals Madrid Espana ple none dusa duer Reyos Ferdinando III si del hombri carcela mito De Grandoza espio del Reyos Ferdinando III los padre houerta el santa virginus bella almos fuami del pico si questa monos si cruir v los mendato spirato del prego duosa fuar cristes felami Reynos Carlos Naples Italy Carnaval des bella in carles aquellas Romitas Ferdinando III. castilliuanos reynos immortalidade almos del maria Rosa los spir-

anosa del uberia costa quelle di si amicos zeus romania alesticad pon  
che nome fluer yoso dente quami."

The source of this "tongue" has so far not been definitely determined. Repeated hypnosis of A and B fails to reveal anything conclusive. At a Catholic school which A attended when a girl there were three pupils from Mexico who spoke Spanish. A says they were not friends of hers and that she did not associate with them, but that she can remember she was thrown with them when taking lessons, and that during these hours these girls sometimes conversed among themselves in Spanish. This would have afforded an opportunity for A to have unconsciously assimilated their speech. And it may be possible that it is this, that twelve years later, appears in garbled form in B's automatic speech. This, to some extent, is confirmed by the fact that when B was put under hypnosis and taken back to the convent days she began using the "tongue." But as it is apt to be used in certain levels of hypnosis, it is difficult to say whether the convent association has any necessary relation to the speech. It would, however, tend to prove that its source belongs to the period of the years at the convent, that is, it is found in that stratum of the subconscious. It is true that this period antedates the shock. A's convent life ended with the death of her father. However the history of A's childhood shows, I believe, that a condition of nervous instability was then present, and that the shock merely sundered associations that were already only loosely organized. But the difficulty with the above hypothesis as to the source of the Spanish "tongue" is that B's whole character has been molded by the Spanish idea. She is in all of her tastes and preferences foreign. The idea that she is Spanish saturates her. She is even fond of dishes that are, or that she images to be, Spanish, and no dark complexion escapes her. And this idea embedded in B as a subconscious or co-conscious complex has resulted in her absorbing an enormous mass of stuff more or less Spanish in character. Most of it A, of course, is unconscious of ever having heard or seen. Like a magnet subconscious perception has picked up everything that is congenial to it. Out of this mass, after due incubation, has evolved the strange fabrications which when they enter B's consciousness impose themselves upon her as memories, and when they appear they are heavily charged with feeling.

Now for this deep-seated desire for things Spanish more than a casual motive must have been at work. Nothing, so far, of an adequate nature has been found in the convent period. It is this fact

that leaves that hypothesis incomplete, if not false. Shortly after the shock, however, something that might have supplied the interest occurred. In fact when the psychology of B is considered no motive could be stronger than the one that then arose. It was then that A made the acquaintance of Mr. X, a man many years her senior, and for whom for some time there existed a strange fascination. Mr. X was a man strongly Spanish in appearance, and his mother was a Spanish woman. This friendship is now clearly recognized by A to have been B's affair, and this B admits, and generously exonerates A from all blame. That is, B, at the time existing only subconsciously, so dominated the behavior of A, in this instance, that the affair really belongs to her. As this was the period of B's growing dissociation the influence of Mr. X upon her character can probably not be exaggerated. It could scarcely have been otherwise. In many subtle and profound ways she was shaped by it, and of this there is ample proof. And it may be that as a means of explaining this bond of affinity the idea occurred to B that she must be of Spanish blood. Once rooted the idea would shape all in conformity to it. What adds weight to this possibility is the fact that the sex impulse was a central factor in the dissociation. There was a strong tension here, and when the shock came it formed the line of cleavage. Once removed the sex-complex became the dominant one in the new group. Thus freed it acquired new strength. In B its influence is persistent and pervasive. She now imagines that when she lived before she was a large and powerful woman, whose passionate nature played havoc with many a lover. For the frail body of A she has nothing but contempt. She cannot get adjusted to A's fragile organism, her imaginary one is far more real to her. In hypnosis this fancy of B's becomes an hallucination, and she sees herself possessed of all the feminine charms. In A's body she says she "feels like a lion in a bird-cage."

Now the circumstance in which this passion was cultivated, and which in turn produced this imaginary body, would, naturally, be the one in which to seek for the clue to the speech. Mr. X's appearance and Spanish blood are the elements in the situation which, in that case, would have tended to develop B in that direction, and would furnish a motive for the use of the "tongue." The actual source of the "tongue" itself, that is, the exposure to the spoken Spanish, would then be an additional problem. I say an additional problem, for according to both A and B Mr. X never spoke a word of Spanish. This may appear to be putting too much trust in their veracity, but as



neither has, to my knowledge, ever shown a disposition to lie to me I am inclined to believe that in this instance they are telling the truth.

So much for the language of B, and the admittedly inconclusive character of the data thus far uncovered regarding its origin. I now call attention to another outstanding feature of the case, and one no less interesting. A does not sing, or sings so poorly that the above statement really needs no qualifications. B not only sings but sings well. Her voice, according to a conservative critic, a well-known musician, and a teacher of voice, is a good one. His judgment, as he expressed it to me, was "Her voice with training would earn her a living." In the many cases of disassociation reported I do not recall a phenomenon of just this character. Although there is nothing obscure in the fact itself, that is, the principles involved in the change are not far to seek, still in this instance the change is so radical that it is instructive. The difference in the emotional life of A and B is reflected in the quality of tone, and A's timidities and inhibitions are thrown off when B emerges. She sings with complete freedom and absolute assurance. In her own mind she is a great singer. This, along with the others earlier mentioned, is one of her fixed ideas. In Spain, she says, she used to sing to great throngs. If left to her own inclination she sings in the "tongue," and always with great emotion. When asked why she experiences no embarrassment when singing, her reply was "that after having been accustomed to singing to the multitudes I don't see why I should be embarrassed by a handful of people." This complete ease of B is a source of continual wonder and admiration on the part of A. A is conscious of the singing and hears the tone, but I am inclined to believe that she does not hear them quite as they are. There are reasons for thinking that B's feeling and high estimate of her performance colors the perceptions of A. Hallucination, to some extent, is probably present. This should not be construed as a disparagement of B's real gift.

In this connection it may be said that the perception of the submerged self, and this is true of both A and B, is never quite the same as those received when in the active role. From repeated descriptions of A and B of how the world appears when they are seeing it subconsciously I get the impression that it is the same only less real. B has described it as "seeing it through a window, then going outside." In this manner she says she saw the world for years before she "got out." She describes interestingly how people appeared to her when she first came out, and saw them close up. They seemed "gross and fleshy,"

and gave her the impression of being in a "glare." Even now she has a tendency to squint, and still retains the appearance of being struck with the novelty of things. As subconscious, the content of B's vision may differ from that of A. She may note many things which escape A. She says she has often seen things in a shop window that A did not. Both can read a page at the same time. If when this is done the interest of both is strong, the lines frequently appear double. A reports that her hand has turned the page before she was ready, B having already finished it. When B is near the surface A is conscious of that fact through certain symptoms which have become familiar to her. Then, again, she may go days completely unconscious of her existence. If B, as subconscious, is deeply disturbed, say depressed or angry, A may also experience some distress, possibly some shade of the same emotion, or it may be a general feeling of uneasiness. If B is so disposed she can determine to a large extent A's reactions to situations and people. For example, A against the wishes of B attended a dinner such as ordinarily she would have enjoyed very much. To her surprise and annoyance she found herself disgusted with things in general, and wishing she were elsewhere. She is also capable of creating in A a feeling of dissatisfaction for a friend of long standing. These statements are based upon instances for which B later confessed full responsibility.

The best illustrations of this transference of emotion is found in the way in which B can, at will, affect A's passion. Generally A is almost completely without it. This has been true only since B's appearance, and it has been a source of much gratification to A. B can immediately transfer the full force of it to A, and she holds it as a choice threat over her. This, according to A, is the strangest of all of her many strange experiences, and to avoid it she is willing to make any concession to B.

B's memory is in some respects good, even remarkable. Her memory of A's early life is much better than A's. She can describe in detail and with great vividness incidents of A's childhood, things that A is unable to recall. During these descriptions by B, A sees these scenes of her childhood pass before her, reproduced much as they might be in hypnosis. Many of these memories A's mother has been able to verify. It is difficult for B, however, to commit a thing to memory. But if it is A that makes the attempt B gets it with ease. The following experience was told by B, and illustrates a peculiar feature of her memory. After returning from the studio where she had

been learning, with some difficulty, the words of a song, she found herself singing a song that had been sung by another student during the afternoon at the studio. From this it would seem that the marginal impression is apt to be retained more easily than that which is consciously held in the focus of attention.

Unlike many, perhaps most, cases of dissociation each of these two selves is conscious of what the other does, that is, when either appears she is aware of what the other has done. There are thus no gaps in the conduct, and as far as the actual conduct goes there is, therefore, no amnesia. But the inner thought that lies back of an act is known only to the self that performs it. Of this inner life each knows only as much as the other sees fit to reveal. In this regard they are related much like any two friends that know each other well.

B claims she never sleeps. But of the truth of this statement she is, of course, no judge. That she is often conscious when A is asleep, I think probable. To prove that she could thus remain awake, she conceived, at my suggestion, a dream which she was to induce A to have the following night. A later reported the dream. The possibility of explaining this by another hypothesis must, of course, be recognized, namely, that it reappeared to B after the manner of a post hypnotic suggestion, and that it then filtered through into the subconsciousness of A. While this supposition is possible, all things considered, the other, that is, that A did just what she planned to do, seems to me to be the more probable. She offers the following as further proof. A had promised to remain up and let in a member of the family who was without a key. Unwittingly she fell asleep. B, remembering A's promise, awakened her. This, again, is open to several constructions. B's contention, it may be argued, finds some support in the fact that while A is in deep hypnosis she remains a keen observer of all that takes place, and communicates these observations by writing. The one case is, inherently, it seems to me, no more improbable than the other. That proof of the one leaves the other indeterminate is, of course, true, and the evidence for the latter, so far available, leaves something to be desired. A, contrary to what might be expected, is a heavy sleeper, and, so far as she knows, seldom dreams.

In common with cases of this type B manifests an extreme egotism. She is never genuinely interested in anything that does not bear upon her own welfare. The conversation must be centered about her past, present, or future. She is utterly incapable of a truly unself-

fish thought or act. When the talk becomes general she drops out of it, and if it is extended, she prefers to disappear. While genial if the situation is to her liking, she is prone to look for hidden motives and meanings. This makes her very sensitive and easily hurt. When handled with care and tact she responds quickly to censure or approval. In the year and a half that I have known her she has never refused a request when seriously made. At times I have had to ask her not to do certain things to A, and in every instance she has followed my advice. A once reported that B had hypnotized her, and this B admitted, and was very much pleased that she had been able to do so. It gave her just the sense of power over A that she very much desired, yet when I explained to her why she must not do so again she desisted, and has not attempted to repeat it.

I have said that the sexual instinct is at the center of the group of associations that constitute B. A says that she thinks of nothing else. That is not quite true, for she is interested in her singing. But sex is never far in the background, and the deeper down you go into her subconsciousness the clearer it becomes that A is not far wrong. A's early training, both at home and at the convent, was one of repression, one that put a strict taboo upon all reference to sexual matters. The result upon A's, at the time, highly sexual nature was to isolate this desire, and drive it underground. When the shock came the breach was widened, and two selves were formed along the lines of the old conflict. Hypnosis confirms this analysis. It uncovers in B a mass of imaginings of the most romantic color. Instead of A's slight figure, she sees herself large and voluptuous, a fascinating beauty. Her story is that she was of humble birth, became a dancer, a courtesan, the mistress of a noble. These hallucinations she remembers after she is awakened, and they seem to her to be memories of a real life.

At one point in the hypnosis a psychological state was discovered that was, probably, originally produced by the shock. B's memories of A's convent days were being searched for traces of the "tongue," when, unexpectedly, she went into a delirium of fear and suffering. Upon entering this state she began to murmur in a half articulate manner in the "tongue," and it was with difficulty that she was induced to tell in English what she saw. She had seen the body of a lover who had taken his own life. So terrifying was the sight that its original appearance, whatever its nature may have been, must have left a deep and profound impression. Two things about this experience point to

the shock which A received by the death of her father. It was in some way associated with the convent period. A's father's death occurred at that time, and the lover in the delirium dies, as did the father, by his own hand. That, in the delirium, the father's death was distorted in this romantic fashion could be accounted for by the fact that in B it encountered a strong undercurrent of sex feeling. The tragedy would thus be given a new setting. For A's father no traces of grief are found, but down in her subconsciousness there is a house of horrors in which lies the body of a dead lover, and even an approach to this spot brings on great fear. The influence of this hidden and distorted complex is seen in the lurid character of B's emotional background.

B's emergence, and life as an alternating personality, has, of course, modified A. It has, as earlier noted, resulted in practically unsexing her. But it has not only modified A, it has also changed, not the character, but the conduct of B. Before she "got out" she reached her ends by dominating A. She thus lived, in a sense, through A. The result of "getting out" and facing the world directly and openly, with the screen of A removed, has been to hedge in her sex impulses. They are there, but they seem to be aroused more by ideas and memories than by actual contact with men. She is sex-minded, and in her speech there is a boldness that often embarrasses A. Knowing her character and influence as a subconscious complex upon the life of A it might be expected that when she emerged as an alternating personality she would be quite irresponsible, and A had, at first, such fears. But these have proved to be quite groundless. In fact A has found that B resents even harmless attentions. She has arrived at the idea that she is A's guardian, and talks much about her superior self-control. In this idea it has been well to encourage her, but her restraint is, in fact, not moral but psychological. In the new psychological setting, that is, B as the dominating personality, this instinct seems disconcerted. These psychological obstructions met in the chronic novelty of the new situation, turn her desire back into imaginary scenes, or force it to find sublimated forms of expression. However this may be, she is, in this respect, a greater danger to A when subconscious than when out and in full control. A more complete and detailed statement of the case than can well be given would be required to appreciate the full significance of the point under discussion.

It is a common thing for these two selves to have long alter-

cations over their respective characters. The drift of B's charges against A is that she is light-headed and without ambition, and that she thinks too much about her health. Whereas A insists that B's claims to a superior character will not bear close inspection. And some traits of B she is loth to believe could belong to a self of which she is any way a part. That B has many admirable qualities she readily admits, and often says that she would miss her very much should she disappear. To enable A to sing she has made many sacrifices. Toward A, B is seldom vindictive, but she never praises her, and I am sure she would express no regret at the news that she had gone. During the period between the shock and B's actual emergence, A was, according to her report, much more nervous than she is at present. And from what I have been able to learn of those years her condition much of the time would have rendered her present employment impossible. The strain on A with B subconscious seems to have been greater than it is under the present *modus vivendi*. As it is, her peace depends upon sharing life occasionally with B. Unless this is done B creates disturbances both mental and physical that are highly undesirable.

All theory and inference aside, the case presents many interesting features. The value of B's accent and "tongue" for the study of subconscious perception and memory is apparent. That some casual and, apparently, indifferent contact with a language many years since should thus reappear shows the possibility of subconscious assimilation, and the way in which these memories have stamped themselves upon the mechanism of speech illustrates the significance of these subconscious processes. And of all that lies back of, and is implied in, the fact that when B uses the voice it becomes a musical instrument, there is much that can be utilized by students of psychology and neurology. The future of the case will be, of course, of interest, and its development will be carefully noted.

## SOME PROBLEMS IN SEX EDUCATION\*

BY HELEN WILLISTON BROWN, M. D.

**T**HERE are at the present time, two general methods of sex education, which may be roughly classified as the old fashioned and the modern types.

The old fashioned method is to leave the child to get his own sex instruction, through observation, and through channels outside the home,—usually children older than himself, or vicious grown persons.

The modern method is that in which the conscientious mother reads a thousand books on "How shall I tell my Child" and then proceeds to "tell the story," as they say, not only handling the simple subject of birth with gloves, but with thought and prayer as well. The classic result of this information is to overwhelm the small boy with emotion, and he flings himself sobbing into his mother's arms, and says, "Now I know why I love you so much,—because I am a part of you!" This reaction is calculated to throw the psychoanalyst into an extatic contemplation of the Oedipus complex in the making. He may feel that the old fashioned method of leaving sex education to the streets, is a deep, unconscious mechanism, for the holding in abeyance of family ties, since the information gathered from the streets is not calculated to raise a child's respect or love for his parents, whereas by the modern method, every effort is made to strengthen the tie between the mother and child, and to create what seems to be an unduly sentimental bond.

It is noteworthy that usually, even the most up to date mother, while she is capable of taking a sentimental pleasure in telling the child about its relation to herself, will feel incapable of explaining the child's paternity. This, I suppose, could be regarded as a desire to glorify her own position, but it seems more reasonable to suppose it is due to diffidence.

A more simple explanation of the old fashioned method of ignoring or making a mystery of sex things, can be found in regarding that attitude as a reminder from the days of sex worship. As we all know, religion tends to make a mystery of its affairs, in order to keep its hold upon the mind of the people, and though at the present day, sex

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\*Read before the Psychopathological Association at their annual meeting Atlantic City, June, 1919.

worship has fallen into disrepute, we probably find its influence in our attitude toward sex, both in our tendency to make a mystery of it to women and children, and to make a joke of it among the initiated.

To those of us who have worked as lecturers on Social Hygiene for the Commission on Training Camp Activities, and whose chief pre-occupation for the last two years has been the problem of reducing immorality and venereal disease, the problem of sex education looms very large.

A psychiatrist, who played an important part in the war, has said that since in two years of intensive training, we have turned our peaceful young men into most excellent fighters, it is probable that in one year more of equally intensive and aggressive training we could make them all into pacifists and conscientious objectors. We know, for example, that York, one of the great fighters of the war, had pacifistic ideas until, as he said, the matter was explained to him by his superior officers, and then he easily was convinced where his duty lay, and proceeded to do it.

Now also in sex education, much could, and already has been done, by training.

But some will say, "If you argue for a curtailment in sex license, you are going contrary to human nature."

One might reply to such arguments, that to a certain extent, perversions seem to be not contrary to human nature, that Greek love was devoutly believed in by the ancients, but that at the present time, as a result of change in public opinion, it is regarded with disfavor.

If human nature makes public opinion, so to a large extent does public opinion mould human nature, and men are more and more coming to realize that a man can do those things with impunity in which he ardently believes, whereas those things which he may unreasonably regard as dangerous, will upset him desperately.

Now if we take sex conditions at the present time, from the standpoint of a healthy people, and a healthy inheritance, sex conditions are, in the main, extremely bad. Should not human nature,—if it be human nature to behave as people do now,—be given a turn in another direction, by emphasizing the social necessity of change?

Would it not be possible, by educating our young people to the ideas that self abuse is a waste of energy, that relations with a prostitute are often no better, mentally at least, than self abuse, and that it is more detrimental than clever to acquire venereal disease, to make them feel that continence is a healthy state, and sex relations without love, a degraded thing? And if all our young people believed in these



things which do appear to approximate to the truth, would they not then become what we call second nature to them?

Certainly we cannot claim that the world is such a successful place that no change in thought should be contemplated.

In straightening out sex problems, undoubtedly marriage, as it is today, presents many complications and difficulties. It tends to oppress those earnest souls who desire law and order, and it is undoubtedly calculated, by its various requirements and conventions, by its ban on those who openly ignore it, and by the difficulties of attaining to it, to distract and dishearten our impecunious young people, and to turn them either into paths of unsatisfactory hypocrisy or of neuroses. However the problem of sex relations may be finally solved, if that solution is to fit the need, it must provide for the union of young people when they ardently desire it. One may do all that is possible to keep emotion unaroused, but once it is there in force, there is literally hell to pay if it is kept in check too long by social forces.

But returning to the question of educating the children,—how, practically, does the social worker of the present day find them growing up, and how may we work with them for social betterment?

We find the children, as I have said, getting their information for the most part from vicious or sentimental sources.

We find the average boy gets vicious sex instruction by the age of nine years, and he usually gets no other instruction to counteract it. He often is hardly aware that there is any other point of view to be held, or if he hears of possible paths of virtue, he is assured that they are only persued by the molly coddle and the physically or mentally weak, so that even if the path of virtue had naturally any attractions for him, he is often frightened from it.

(One listening to those talk who tend to be promiscuous, is often reminded of the fox who lost his tail, and actuated by jealousy of his more fortunate friends, urged upon them, the desirability of losing theirs also.)

The average young boy is taught self abuse which he frequently practises to an unhealthy degree, with concomitant morbid mental excitement. He is taught by other boys that to go to a prostitute at an early age is the manly thing. His ideas of marriage and the family are degraded to a degree. If he gets by chance a lecture on sex hygiene when he has progressed to college, his mind is often so warped by that time, that he does not believe what he hears, or thinks it is a joke, or if it does appeal to him as sensible, he is likely to be heavily handicapped by his past.

This seems to be the position of the average boy of the present day, and the girl is often in an even more complicated state of mind and body.

Now should we be justified in saying this is human nature, and that therefore there is nothing to be done? It is undoubtedly the way things are at the present time. If however, we accept evolution, we think we have already advanced a good way beyond our simian ancestors, and that there may yet be a long road ahead.

Recently we have learned something of race psychology. We believe there is no more fertile field for the production of neuroses among the timid hearted than to make them feel they are behaving in a way contrary to ordinary behavior. Also we are learning to a certain extent, what kind of education it is that produces the timid hearted or the brave, and just recently the war has brought vividly to light the ancient truth that "As a man thinketh, so is he."

The "enlightened" therefore, have at their command sufficient material for the construction of a new era. The masses will dwell contentedly in the model tenement they may erect.

The obvious thing to do is to start counter education of an unsentimental sort, to react against the degenerate remainders of an ancient religion that has passed its usefulness.

If it were possible, as has been said, to give our young people consistent sex instruction, combined with an understanding of more ideal social conditions, so that they would only think of immorality as an asocial state, would they not cordially fear, and abhor immorality, and would not the neuroses be likely to occur among those who countered the general moral opinion of their fellows?

The practical question is, of course, how we may get rational sex education across to the children. This should be begun, at least, in the home, but the practical difficulties of education through the home only, are enormous because of the ignorance and prejudice of parents, and it would take several generations of sane teaching to do away with them.

The obvious mechanism is that of the schools. At present, in most places there is no sex education in the schools as a regular part of the curriculum, but educators are becoming anxious that such instruction should be given, and there is considerable demand for it, always with the proviso that it be done by "the right person," which means a person qualified by endowment and education to handle both the subject and the children.

To have a cut and dried series of lectures, learned by heart, and given by an inexperienced person, would not be satisfactory. Any

one who has ever lectured to small boys and permitted them to ask questions, knows the very wide range that their questions cover.

It is one of the most exciting things in life to be faced by an audience of small boys who feel they have discovered a mine of information, and who desire at once to have straightened out and explained all the various problems that confront them. It is an exciting experience, and rather heart breaking as well, to realize how keen and simple are their minds, and how much might be done with them if there were time. To have them say "You will come back and talk to us again?" when it is impossible.

We have neglected the children, in this way long enough. Would it not be well for the medical profession to take a hand in sex education, and see that there shall be sufficient well trained doctors to cover the needful work?

A proper program of instruction in the school would begin by teaching the very small children such elementary facts of biology and hygiene as they can comprehend.

The programme should also include work with the Parent-Teachers' Associations, so that what can be done by parents at home may not be omitted.

The school nurse might carry on the instruction in hygiene and sanitary living, and a doctor should give the lectures in sex education. There should be sufficient time for the doctor to have interviews with each child so that he may get in touch with individual problems, and deal separately with each child's particular needs. In my opinion the lectures should begin when the child is young and unspoiled, be modified according to his years, and repeated at least once a year, until he leaves High School or college. In such a way the work of each year would be reinforced by that of the next, and the child could receive along with his sex instruction, sound mental hygiene as well. The good that might be accomplished in this way would be incalculable.

Whether this education should be carried on under the auspices of the State Health Department, or that of the Federal Government, is of course a question to be decided. Probably the State might be best informed of its own particular needs,—but the Federal Government might be able to coordinate the work of the States, and keep them in touch with each other.

If the Psychopathologists desire a means by which to accomplish the healthful intergration of the characters of our young people, they will find no more fruitful field in which to labor than that of sex education.

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## ORIGINAL ARTICLES

### BEHAVIOR AND EXPERIMENT IN SOCIAL PSYCHOLOGY\*

BY FLOYD H. ALLPORT

**I**N THE recent rapid expansion and progress of general psychology one field, it seems, has been sadly neglected and has been allowed to remain in a rationalistic and pre-experimental stage. This field is social psychology. Text-books still cling to the faculties of imitation, crowd consciousness, gregarious and other alleged social instincts. Even the great era of structuralism has left no worthy trace. In spite of florid accounts of mob mind, not one important piece of introspection has been produced to show the influence of the group upon individual consciousness. As for the services of behaviorism, there has been only a schematic notice of social conduct without a really genuine observation. True social psychology is a science of the future; its data are at present unrecorded.

It will be well to glance briefly at the factors which have impeded experiment in social science. The first of these we may term the "fallacy of the group." The group is not an elementary fact. Analysis must go beyond it to the behavior of the individuals of whom it is composed. Concepts, therefore, which denote characteristics only of groups are of little service. In the terminology, for example, of Professor Bentley, "congregate" signifies a body of persons physically associated, "assemblage" denotes a group with only a psychic bond, such as a community reading its morning news or a body of churchgoers anticipating the Sunday morning sermon. Aside from convenience such classifications do not seem to be vital, because as psy-

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chologists we are interested little in forms of social aggregation but much in the social behavior of the individual which underlies all aggregation.

Little more can be claimed for the neat phrase "polarization" used by Dr. Woolbert to characterize the unity of the attention of an audience to a speaker. Such a term forcibly restricts the sphere of the social influence. It also seizes upon the crowd as a whole, neglecting the important fact, to wit, the nature of the response in each individual. The crucial question would be: how does his response when the individual is in the group differ from that when he is alone? Is polarization merely the sum of individual responses, or are there inter-individual adjustments in progress?

The writers cited are merely examples. They by no means stand alone in the tendency of over-stressing the rôle of the group. To trace the fallacy further, one frequently encounters the statement that a crowd or mob under the sway of a leader is a unit. So it is. But this unity from the psychologist's standpoint is accidental. Similar reservoirs of energy have been tapped in the members of a crowd, and there is released a set of similar responses. The result is the appearance but not the reality of unity. The one-ness lies not in the response of individuals to one another, nor even in their participation in a common idea, but solely in their uniform response to the leader. We cannot accept the implication that each mind feels itself a part of one great whole, or that there is a depersonalization of self-consciousness and a rise of crowd-consciousness. The war has proved that the social psychology of the soldier must be studied, not in the crowd phenomena of company or regiment, but in the specific reactions and interactions of persons. Or again, in the present industrial conflict, it is of little value to speak of conflict between groups or classes, each polarized by imitation, suggestion and the like, and motivated by the instinct of pugnacity. True causes must be sought by the scientific method, that is by the scrutiny of individual cases in which direct or indirect social stimulation has produced definite responses.

We may conclude then that the greatest incubus in social psychology is the unwarranted emphasis placed upon the group. We have been so busy talking about group types, group interests, group consciousness, and degree of group solidarity, that we have forgotten that the locus of all psychology, individual or social, is in the neuro-motor system of the individual. There can be no effect at large which is not exclusively an effect upon separate persons. To borrow the

phrasing of an old adage, if we take care of the individuals, the groups will take care of themselves.

Along with group psychology we must banish also categories of instincts which are supposed teleologically to equip the human being for the life adjustments of society. There may well be innate physiological patterns of response which in the interaction between organism and environment develop into perfected life-serving habits; and it is to be expected that these patterns, embodying fundamental drives, will come into play with objects of the social environment. But certainly in no further sense than this are we equipped at birth with mechanisms of social utility. For example, the self-preserving reactions exhibited in anger at the thwarting of bodily movements appear to be innate. They are in evidence very shortly after birth. The new-born infant however is equally angry or pugnacious whether it be a person or a blanket which confines his movements. The only reason why he later comes to use the fighting response toward persons and not toward things is because he has found by trial and error that such a response is effective only toward the former class of stimuli. In like manner self-assertion and self-abasement may be shown, if innate at all, to be instinctive only in physiological pattern and not in social significance. Alleged instincts of gregariousness and imitation are signal offenders in the ascription of nativity to the learned reactions resulting from the play of truly innate impulses upon objects of a social character.

Certain writers, in fact, following the lead of McDougall, have reflected no credit upon the latter by the employment of the psychologically monstrous term "social instincts." We must repeat that the word "social" has no significance except as denoting a certain type of environment and the part played by it in the post-natal behavior of the organism. Professor Dunlap has already pointed out the evil of mixing purpose with scientific explanation. The use of the term just mentioned seems to me a most flagrant injection of teleology into the developing germ cell. The innate equipment of the child, whatever it may be, is individual in every sense of the word; it is only the subsequently learned reactions which may be termed "social." From this we may deduce that for the data and laws of social psychology we must search primarily in other fields of behavior than that of instinctive response. What these fields may be will be discussed presently.

Even at the risk of commonplace we must insist that rationalism

can never take the place of observation and experiment. We must have the individual not in the background of our minds, but directly before us reacting to social stimuli. One observation of a baby's first laugh, or of the early use of language, is worth more than treatises on instinct and emotion. That idol of speculation lauded since Descartes, self-consciousness, must be worked out in terms of the behavior complex. It has been maintained that the consciousness of self, and its formation upon the experience of other selves, are of deep social import. This is seriously to be questioned. Consider, for example the cry of anger in the new-born infant, already mentioned. It is pre-eminently to such an organization of response that the term "self" should be applied. In actual life, whether individual or social, the *consciousness* of self is generally conspicuously absent. Indeed, to determine what causal relation it bears to social behavior is a problem for mystics. Self consists not in reflection but in adjustment of the organism to the inanimate and social sphere in which it moves.

After all this detraction it is incumbent upon us to suggest a program which shall keep social psychology abreast of the times. Shall we not say, then, that social psychology studies those responses of the individual which are conditioned in whole or in part by the social surroundings? The responses referred to fall under two heads: (1) those which are caused directly by social stimuli, and (2) those which are brought out by non-social stimuli, but are modified by the presence of accompanying social factors. At the outset the question arises whether any stimulation is wholly devoid of social aspects, and whether by consequence individual and social psychology can be separated. Professor G. H. Mead has pointed out that social stimuli are at least as early and as important as purely inanimate stimuli in the life of the organism, and that they condition meaning, thought and action throughout life. The interdependence of thought and language again reveals the inextricable social warp in the human fabric. Granting this, is it not therefore still more imperative to trace the developmental course of social behavior?

Genetic considerations aside, we can however discern a rough practical difference between social and non-social objects of stimulation. If I sit down to a meal in solitude, I respond to the food as a non-social stimulus. If however, I were a cat watching the movements of a mouse, or if I were perchance a cannibal cajolling my prospective dinner, then I would be reacting to a social stimulus. It is quite intentional that our two illustrations should rest upon the same under-

lying impulse, the obtaining of food; for social psychology, as stated before, deals not with instinctive drives, but with responses which, although perhaps based upon such drives, are called out selectively by a particular feature of the environment, namely the behavior of other individuals of our own or a similar species. The same innate impulse may initiate two activities which result in securing food; but one of them is material for social psychology while the other is not.

In the examples stated the response is direct; the behavior of one's fellow is the specific cause of the reaction. Suppose, however, I were eating at a dinner party. Then my response to the non-social stimulus (food) would be *modified* by the behavior of the others present. Such behavior may afford an incidental visual or auditory stimulation, or it may exist and be reacted to as a set of attitudes which I *believe* are assumed by my commensals. In any case a modification of conduct is produced by introducing social factors into the environment, and is measurable, as we shall show later, by experimental methods.

We may therefore define social stimulation as the stimulation resulting from the behavior of others which arouses a definite response. And we may recognize, without a claim to sharp distinction, the two types of whole and of partial causation in the response which the total situation evokes. It is my purpose briefly to develop the possibilities of these two types, and, in the case of the latter, to present a summary statement of experimental results already achieved.

To begin with the first, the direct response to social stimulation, we must descend in the animal series at least as low as the arthropods. Professor Hobhouse cites the observation of a hermit crab stalking an insect. The crab approached stealthily from behind, dropping down inconspicuously when his prey showed slight uneasiness or inclination to turn. Here is a case of fine adjustment of action which is not to be found in any of the reactions of the crab except those evoked by animate behavior. Its importance in connection with food-getting is apparent. Ants respond to stimuli from their fellows in very definite ways. There are movements and strokes of the antennae which elicit reactions respectively for food-seeking, for avoidance of danger, and for combat. It is in these specific interactions of lower animals, and not in their much discussed "societies" that we should seek the comparative data of social psychology.

Not only are definite movements and signs effective as social stimuli; we must admit also attitudes or motor settings toward acts or



gestures of a definite sort. The posture of the head, the tensing of certain muscles, the incipient frown or smile—these, as subtle forerunners of acts soon to ensue, acquire high value as social stimuli. Mammals and birds respond to such attitudes in their own kind or in human beings in characteristic ways. An intelligent cat will read and react to attitudes of fear, anger, or affection in a person to whom he is accustomed. Professor Mead aptly describes the shiftings and mutual adjustments at the opening of a dog fight as a "conversation of attitudes." Handicuffs of boys in play are of the same type. A blow somewhat smarter than usual may arouse a posture or expression of anger, and immediately before overt manifestation of the tendency, there is a response in the assumption of a like attitude by the play-fellow.

Some remarkable cases of social behavior are to be observed in the food-getting activities of monkeys. Dr. Kempf reports a case of strategy in which monkey E used a misleading form of behavior in order to seize food from a wary monkey (D) who countered all other forms of approach by a wholesome suspicion. E would search about in the sawdust of the cage, apparently searching for food of his own, but cautiously glancing back over his shoulder and casually working his way backward as he searched until within grasping range of D's morsel of food. Other monkeys speedily learned to respond to E's strategic behavior; but D, who was evidently a socially stupid monkey, never made the adjustment.

Efficient behavior of this sort is the more remarkable in contrast with the apparent lack of reasoning power in the conduct of monkeys in puzzle boxes, and in imitation experiments. Practically all cases reported show that their method is the primitive one of trial and error in manipulation; and only a few investigators have found evidence of grasping a solution by observing the experimenter's movements. On the other hand, in the behavior of E, there appears a re-grouping and apparently a new integration of simple habits, such as scratching for food, shuffling about, and grasping, which are remarkably well adapted to the solution of a complex problem. Although Dr. Kempf could not ascertain the origin of this trick, it was doubtless either self-originated or learned from another monkey. In either case we find that when the elementary habits of non-social response can be made to serve biological ends as social stimuli, they are organized into complexes for producing reactions in others in a manner closely rivalling the adaptability of human beings.

Many of the earliest adjustments of the infant also are social in character. Actuated by hunger or other basic impulses, babies show a facility in being stimulated by maternal behavior to definite modes of response which far outstrips their adjustments to inanimate objects. At a later age gestures, facial expressions, and words, if connected with infantile interests, enter with astonishing readiness into the action system of the child. How quickly he learns to respond to signs of commendation, disapproval, playfulness, and prohibition! We should recall also in this connection the case of Clever Hans and the social brilliance displayed by so comparatively stupid a species as the horse in responding to scarcely discernable cues of movement afforded unwittingly by spectators.

Facts such as we have been discussing prove that educability through social interaction is earlier and finer than through experience with non-social objects. When stimulus and response are social, the adaption to new and diverse situations is surprising. If we consider intelligence to be the measure of adaptability to new and difficult, but crucial, situations, may we not then attribute to an animal or person a *social intelligence* far in advance of his intelligence in dealing with the world in general?

This viewpoint must be presented with a word of caution. It is not meant that in social intelligence we find nervous or mental operations of a character different from those employed in adaptations of a non-social sort. It must be agreed that the baby learns to respond to the soothing tones of the mother in the same way that a dog learns to associate the sound of a tuning fork with his food. I desire to affirm merely that social stimuli are prepotent at an early age and throughout life, and that they therefore in large measure make possible that life adaptation which we call intelligence.

The social phenomena we have been discussing, namely those directly evoked by the behavior of a member of the same or a related species, can be investigated in at least two ways. The first is by the observation of their genesis in children, and the determination of the first forms of reaction to behavior and the building up of complex social adjustments on the basis of increasingly complex social stimuli, such as movement, expression, attitude, gesture, and sound. The second comprises the experimental study of the individual's reaction to social attitudes, emotional expressions, pantomime and conversation. The field to be sure is vast and the settings difficult of control; but the returns will be commensurate value.

In most summary manner allow me now to refer to the possibilities of the second class of the data of social psychology. In this case a response which is made primarily to a non-social stimulus is influenced by social factors present in the situation. In this category belong the influences brought to bear upon individual behavior by the presence of co-actors in the shop, the workroom, the school, the office, the library, the trade union, the club, and the professional organization. It is the condition also which obtains in the audience or congregation, in public assemblies, and in the crowd and mob. In all these situations the individual reacts directly not to the behavior of the other individuals, but to some stimulus wholly or mainly non-social, such as a task, a book, a lecture, a set of rules, a political speech, or a riot. He is however influenced in that reaction by the overt or implicit evidence of the behavior of the others toward the same object or toward him. In a crowd or audience one finds an inseparable complex of social stimulations of both the direct and the contributory sort.

The fundamental tendencies of incidental social influence are readily open to experimental investigation. It is necessary only to arrange tasks or experiences to be performed or undergone during one set of trials by a number of subjects working together, and in another set by the same subjects working alone. In this way the nature and quantity of social influences upon individual response may be determined. Prior to 1915 practically all research on this problem had been done in Germany by August Mayer, Meumann, Moede, and others. The purpose was not primarily social but to determine the merit of work done by children in school compared with the work done at home, or in seclusion. A short summary of these results may be found in an article by Professor Burnham in *Science*, N. S. 1910, Vol. 31. Mention should also be made of the excellent experiments on social influence by Dr. H. T. Moore and by Dr. A. P. Weiss, already reported at these meetings.

During the last few years I have conducted a series of experiments in the Harvard Laboratory along similar lines. The subjects were adults, and the tests and experiences included multiplying, cancellation, a reversible perspective test of attention, free chain association, thought process in the form of written argument, estimations of weights and of the pleasantness of odors, and emotional influences. The results corroborated those of earlier investigators in the occurrence in the group of a more vigorous exertion of attention and an increased output of mental work in attention tests, multiplying, writ-

ing associations, and producing arguments, than occurred when the subjects worked singly. There was a tendency also for the superior individuals to be less favorably influenced than the inferior by the stimulus of the co-workers.

In the association tests there was a decrease in the number of associations of the personal, or ego-centric sort written in the group condition, together with a more frequent reference to objects in the immediate physical and social environment. Whether this fact indicates again a response in the nature of a social attitude is not certain, but it is a suggestive possibility.

One of the most interesting results was brought out in the social influence upon judgments. Both affective judgments (i. e. the estimation of odors) and non-affective, such as weight estimation, were characterized in the group by an avoidance of extremes, both high and low. Extremes of a graded series were estimated more conservatively in the group than when judging alone. The explanation that this fact results merely from distraction is disproved by the further result that in the case of weights, where precision could be determined, the judgments were equally accurate together and alone. Here again there appears an attitude or tendency to response characteristic of behavior influenced by concurrent social stimuli. The precise cause of this attitude of social conservatism, and its genesis and individual variation, are probably significant problems in the field of direct response to social stimuli.<sup>2</sup>

The experiments which have been described deserve attention mainly as pioneer ventures into a field which by reason of its daily familiarity in human experience has been too much taken for granted and too little explored or understood. Many more experiments are required in which the type of common task or experience and the number, character, and mutual relations of the individual subjects can be instructively varied. In summary, the time has come to abandon speculations about types of groups, social organization, self and crowd consciousness, instinct and imitation. When social psychologists focus their attention upon the behavior of the individual under direct and incidental stimulation from the behavior of others, then the most vital questions of the social order will find their solution.

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<sup>2</sup>The results of these experiments are soon to be published in detail as a series of articles under the general head: "The Influence of the Group."

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## ARE THERE ANY INSTINCTS?<sup>1</sup>

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**T**HE conception of instinctive activities is a fairly definite one in general psychology, and we may without hesitation accept it as it is generally understood; namely, as designating any responses which have not been learned.

The conception of *an instinct*, or of *instincts* is however a very confused one, and recent texts show great vacillation in the application of the term. Some authors apply the term to what Warren in his recent classification<sup>2</sup> lists as *instincts*, and also to what Warren lists as *reflexes*. Some authors restrict the term to groups of activities which are unconscious: others insist on consciousness as one of the specific differentia of "instinct." In most cases, it is assumed that "instinct" does not involve volition: but I do not think all authors would agree to this restriction. I refrain from introducing pertinent illustrations solely because I do not wish it supposed that I have more pointed objections to certain methods of treatment than I have to a great many others.

The greatest confusion of all results from the failure to distinguish between the instinct as a group of activities *teleologically* defined, and the instinct as a *physiological* group. It makes considerable difference whether, for example, we consider the "feeding instinct," as made up of the activities which result in food being secured; or consider it as a certain physiological group of activities which we may name from its most characteristic result, but which is defined by its actual reaction characters, and in that way distinguished from other physiological groups.

The confusion may perhaps not be an important matter for general psychology in its present state of development. Certainly, the presence of the confusion in some general texts seems to have no particular bearing on the further work in these texts. In social psychology however, the term is capable of great abuse, and is decidedly dangerous unless applied in a carefully considered and standardized

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<sup>1</sup>A paper presented before the American Psychological Association, Cambridge, Mass., Dec. 29, 1919.

<sup>2</sup>Psychological Review, 1919, Vol. 26, pp. 197-203.

way; and it is from the point of view of social psychology that I am here approaching the topic. I am not concerned for the present as to whether the "instinct," as defined, shall turn out to be conscious or unconscious; or whether if conscious, it is volitional or non-volitional: I am concerned simply with the question of the definition itself; whether it is to be teleological or physiological.

The term "instinct" might be applied consistently, as it is applied at times, to a certain definite group of muscular and glandular performances—a form of behavior, in one of the various meanings of the elusive term "behavior"—resulting from a definite stimulus or complex of stimuli. The concatenated movements of the muscles of the face, throat, and viscera, with attendant glandular changes, which make up the sucking reaction of the infant: or the disposition to make these movements upon certain stimuli: might very well be designated as "instinct," regardless of whether consciousness or volition is involved, and quite apart from the fact that the reaction may be useful. That there are "instincts" in this physiological sense of the term, I suppose no one could deny: certainly I shall not deny it. But it is very difficult to adhere to this meaning of the term, if we may judge by the procedure of the various authors who deal with the topic, and I am very strongly convinced that it is not at present possible to secure agreement to confine the term to this meaning.

At any rate, I propose to join in the neglect of the physiological use of the term, and formulate the inquiry to ask whether there are "instincts" in the teleological sense—the sense in which the term is used in McDougall's *Social Psychology*.

In the teleological use of the term, as I have already indicated, the activities are grouped and classified in accordance with the results obtained in the outer world, physiological and psychological groupings being largely neglected, and where introduced, being always subsidiary to the teleological groupings. Thus; the "instinct of flight" includes all those activities which result in a get-away from a dangerous locality: the "instinct of repulsion," all those activities which remove something from the animal's environment: the "instinct of curiosity" includes the activities leading to examination: "pugnacity" includes the movements which eventuate in combat: the "parental instinct" is the sum of the activities which result in the care and protection of the child: the "instinct of reproduction" includes those activities which result in the propagation of the species: The "gregarious instinct" is the composite of activities which result in forming a herd and

holding it together, and so on through the list. (Of course I mean that the tendency to these activities constitute the "instincts," but the shorter expressions are not misleading).

This teleological grouping of activities under the concept of "instinct," so forcibly represented by McDougall, is apparently widely accepted, and so thoroughly fixed that there is little possibility of using the term in any other way. In discussing the question whether or not there is an "instinct," as a usefully discriminable entity, we are therefore not denying the physiological grouping previously mentioned. Nor are we denying the possibility of a psychological grouping: such may be discoverable, although no one has so far made any serious search for it. New terms will have to be found for these groupings.

The grouping of activities into "instincts" may be admitted to be a useful procedure, if it be clearly understood to be a device of convenience only, similar to the arrangement of documents in a well ordered filing system. Just as there may be different filing systems for different purposes, so different classifications of "instincts" are useful, if they are not misunderstood as being anything more. We may classify "instincts" under two, four, twenty, or a thousand headings, according to the particular purposes we have in view, and may then use another classification for another purpose.

The constant tendency in social psychology is to consider these convenient groupings, arbitrarily made, as if they were series of natural and generic distributions on the psychological level, and to deduce a set of important deductions from the classification adopted. Having posited a "pugnacious instinct," for example, one writer proceeds gravely to infer that war is forever a necessity, as the expression of this "instinct." Controversy over the hypothetical "moral instinct" is another illustration of confused procedure. As a matter of fact, there is or is not a "moral instinct," according to the plan of the author. If it is deemed useful to segregate, in the outer world, certain effects which are to be named "moral"—and this segregation can unquestionably be made—any unlearned tendencies which contribute to these effects, legitimately make up a "moral instinct." If the classification of effects as "moral" is not chosen, then of course there is, for the author choosing, no "moral instinct." Again; if it is advisable to distinguish between the mere process of copulation and the processes of conception and birth, there is an "amatory instinct," distinguishable from the "reproductive;" otherwise there is not.

The impossibility of considering the teleological classification of



"instincts" as more than a matter of convenience, is shown by the overlapping of the "instincts." Even the teleologists point out that "pugnacity" arises from other "instincts." As a matter of fact, there are very few actual responses of the animal which do not form part of a number of "instincts," whatever the system of classification. The same physiological activities, and in part the same conscious processes, are involved, in primitive man, in pursuing a deer for food, and in pursuing a female for amatory purposes. In other cases the same reactions may now be classed as mere "flight," now as manifestations of "gregariousness," now as manifestations of "self abasement." The same fears and perhaps the same desires may be involved in several cases.

I am sure that all the activities, physiological and psychological, of which the animal is capable, participate at some time or other in the expression of the "reproductive instinct." By taking the teleological "instinct" as if it were a psychological or physiological entity, the Freudians accordingly arrive at the grand conclusion that there is nothing in the animal world but "sex instinct." The reactions shown by a child may later be utilized by the "sex instinct." Hence, it is assumed that in its first appearance, the reaction is "sexual." In stating that serious results flow from the confusion of the teleological and the psychological points of view I am not theorizing, but referring to plain and deplorable matters of fact.

The present tendency to develop social psychology on the basis of a classification of "instincts" results in as many kinds of social psychology as there are classifications: and the possible number is legion. By assuming that some preferred classification represents an ultimate list of essentially different units, a psychologist is enabled to develop a system which is in reality nothing but a logical deduction from the assumptions made in the list adopted. Each system may be as logically perfect as any other. In the same way, Euclidean geometry, hyperbolic geometry, and parabolic geometry, each legitimate and exclusive of the other, are built up, each on its definite postulates. As an illustration of this sort of construction in social psychology we may compare Trotter's *Instincts of the Herd in Peace and War* with McDougall's *Social Psychology*, and with the Freudian system. One might go further, and consider the less sharply drawn systems resulting from the assumption of moral and religious "instincts." If an "instinct to imitate" be assumed, still different systems result.

The consequences of carrying over to psychology the teleological

conception of "instincts" are much complicated by further assumptions concerning the role of consciousness, and of volition. We might examine the deplorable consequences of this complication in child psychology, where, if possible, the confusion is even worse than in social psychology: but it is better to deal with the more fundamental fallacy, and settle it in such a way as to abort the fallacies based upon it.

With teleology as a method, we need have no quarrel, and we should not lightly underestimate its importance. Perhaps it may be of far greater value than psychology. Perhaps there is no such a thing as social psychology. But if so, let us call the topic by some other name, and cease to delude ourselves into accepting it as psychology. Personally, I am inclined to favor the belief that a social psychology may be developed. In such a science, teleological methods may legitimately be employed, if properly labeled, just as physiological methods may be. One must however beware of a teleology masquerading as psychology, even though it utilizes a great deal of psychological material, and employs some psychological methods.

Accepting the term "instinct" in the sense in which it is most emphatically used at the present time, we must conclude that for psychology there are no "instincts." There is a great deal of *instinctive activity*, both conscious and unconscious, and probably both volitional and non-volitional: instinctive perceptions and thoughts no less than instinctive acts and emotions. These activities may well be considered in their physiological groupings, and possibly in their psychological groupings, if such groupings are discoverable. I am at present inclined to think that the possibility of discovering social psychology rests upon the possibility of discovering psychological groupings of instinctive activity: and neither of these discoveries is likely to be made until we cease talking of "instincts."<sup>3</sup>

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<sup>3</sup>There is of course no objection to the use of the term *instinct* in the general sense, just as we use the general term *intelligence*. The objection is to using the expressions *an instinct* or *instincts* to indicate anything except a classification for purposes of convenience, or else in a distinctly teleological sense.

# BABINSKI'S THEORY OF HYSTERIA<sup>1</sup>

BY MORTON PRINCE, M. D.

**O**F RECENT years, and particularly as a result of the experience in this war, there has developed amongst French neurologists, under the teachings of Babinski, a reaction against the classical conception of hysteria of Charcot and his school. This present tendency, or rather the present concept which is in vogue, is to regard the classical symptoms such as paralysis, anaesthesias, convulsive seizures, etc., as artificially manufactured by the physician or the environment through the influence of suggestion and not as essential manifestations. In this view these manufactured symptoms are identified with hysteria and consequently hysteria becomes nothing more nor less than a group of suggested symptoms. It is claimed, that under the influence of this point of view and clinical method of approach, hysterical manifestations are much less common than formerly in neurological wards, and that during the long continued neurological experience of this war this particular kind of war psychosis, or so-called shell shock, was finally largely controlled and diminished in frequency. I think, also, it is true that this conception of hysteria towards the end of the war largely permeated English thought and dominated the point of view of English neurologists who were engaged in the treatment of war psychoses. This reaction, as I have said, has been due to the teachings of Babinski, who for many years has insisted that hysteria is nothing but the product of suggestion, and therefore an artificial psychosis. I propose to examine Babinski's thesis and the evidence upon which he relies for his inductions.

Babinski<sup>2</sup> begins by dividing the phenomena of hysteria into two groups: First, those "accidents" which have "the common characteristics of being capable of being reproduced experimentally by suggestion" which he avers is "capable of determining the form, the intensity and the duration of them." And, correspondingly, they can be made to disappear by the influence of persuasion or suggestion.

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<sup>1</sup>Read at the Meeting of the Boston Society of Psychiatry and Neurology, December 18, 1919.

<sup>2</sup>Hystérie—Pithiatisme et Troubles Nerveux D'Ordre Réflexe En Neurologie De Guerre. Par J. Babinske et J. Froment. Mason et Cie, Paris, 1917.

In these accidents or symptoms are included convulsive attacks, paralysis, various contractures, tremors, choreic movements, sometimes irregular but generally rhythmic, troubles of phonation, of respiration, of sensibility (anesthesias, hyperesthesias) and sensorial troubles.

In passing let me say that while *experimental* suggestion is capable of reproducing these phenomena it is doubtful if they can be so reproduced in their complete form in a normal individual, and particularly in their *intensity* and *duration*, excepting in a subject already subject to them. Anesthesia, contractures, and paralysis, for instance can be induced in a normal susceptible person by hypnotic suggestion, but such suggested phenomena spontaneously and very quickly disappear when the person is left without attention. They may be said to be normal phenomena. Given, however, a person already affected with the hysterical *state*, such phenomena with the characteristics of intensity and permanency peculiar to hysteria can be induced by direct or indirect suggestion, and, if they have been recovered from, may be reinduced. They are not normal phenomena. The reason for this difference should be clear with an understanding of the hysterical state.

In the second group he places those phenomena which are uninfluenced by suggestion. In this group are included, on the one hand, dermatographism (which he attributes to an exaggeration of the cutaneous vasomotor reflexes) and, on the other, abnormally intense and prolonged emotional reactions: namely, tachycardia, erythema, hypersecretion of the sweat and intestinal glands.

The phenomena of this group can be artificially and experimentally reproduced only indirectly by the intermediary of emotion which suggestion can excite. For, once thus indirectly excited, these cease to be under the influence of suggestion which "is incapable of determining their form, intensity and duration." They are the physiological manifestations of emotion. He fails, however, to recognize all the manifestations of emotion.

The second group, therefore, must be completely differentiated and each must receive a different and appropriate name. To the first group he would limit the term "hysteria," if used at all. To the second group he would give the names dermatographism, vasomotor troubles, or troubles of vasomotor reflectivity, emotional troubles or troubles of emotivity.

In passing I would say that in one sense these are not troubles at all but only normal manifestations of the emotional hysterical state

of mind. It is the emotion which is pathological in its intensity and permanency, as is evidenced in the phobias, and depends upon the formation of systems or complexes of painful ideas, sentiments and emotions organized by particular experiences of the individual. Emotion, or rather emotional ideas are very commonly a factor in all hysterical states.

Perhaps I may be permitted to recall that many years ago<sup>1</sup> I called attention to the fact that these and other symptoms so commonly met with in hysteria and the functional psychoses and neuroses are only manifestations of emotion. So there is nothing particularly novel in segregating symptoms of this class from those of the hysterical state proper.

From his point of view Babinski would abandon the name of hysteria and replace it with the term pithiatism, from *πειθω*, I persuade, and *larós*, curable, which expresses, in his view, one of the fundamental characters of these "accidents," viz: possibility of curing them through persuasion.

Now let us see what trouble Babinski lays up for himself, and is bound to fall into, from this point of view. Recognizing the failure of the older writers to formulate a definition of hysteria, he feels satisfied with the following which he gives:

Hysteria is a *pathological* state manifesting itself through troubles which it is possible to reproduce by suggestion in certain subjects with a perfect exactness and which are susceptible of disappearing under the influence of persuasion (contra suggestion) alone.

In passing he meets the criticism, that persuasion or contra-suggestion is capable of curing neuropathic troubles that are not hysterical and in particular neurasthenic symptoms, by asserting that there is common agreement that fatigue phenomena, essential characteristics of neurasthenia, are not susceptible of being cured by contra-suggestion alone. The symptoms that can be made to disappear by this method are only hysterical accidents (pithiatic) engrafted upon neurasthenia. That he does not meet this criticism adequately I will later point out, for it is common experience with those who have made a thorough and profound study of hysteria and neurasthenia that fatigue symptoms, even in cases where there are no so-called classical symptoms of hysteria, can be made in certain cases to disappear in the twinkling of an eye by suggestion. In other words, there is a form of

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<sup>1</sup>Fear Neurosis; *Boston Medical and Surgical Journal*, December 22, 1898. The Unconscious, 1914, p. 441.

so-called "neurasthenia" which is purely expressive of the "hysterical state." It is one of the "accidents."

To return now to Babinski's definition of hysteria, I would emphasize the fact that he defines it as a "*pathological state*" of which the so-called troubles are only manifestations. This idea of the pathological state—a sound one—should be constantly kept in mind in following Babinski in the development of his argument. For, strange as it may be, after the formulation of this definition, we hear nothing more of the pathological state but only an elaborate and clever exposition of its manifestations. This failure to keep in mind, on the part of Babinski, the conception of the pathological state, is the weak point in the edifice which he builds up. Dwelling only on symptoms he fails to grasp the essential problem of hysteria, losing sight of the pathological state and its psycho-genesis which should be the sought for goal or solution. He confines himself to certain physiological phenomena and loses sight of the fact that many of the so-called troubles which are the manifestations of the "hysterical state" are pure mental stigmata. These are not included in his first group of pithiatic symptoms, i. e. are not recognized as hysterical, though they can be induced in favorable subjects by suggestion. Necessarily, therefore, he fails to recognize that many of the cases which he makes use of to support his thesis were already in the "hysterical state" and manifested classical manifestations of hysteria. These cases that had been exposed to emotional trauma, he assumes were free from hysteria until they were later the victims of suggestion. The consequence of this lack of vision is that when he comes to his data, to the cases which he cites to show that hysteria is not induced by emotion but only by suggestion, he naively describes cases which every clinician ought to recognize had already developed hysteria and already exhibited classical hysterical symptoms of a mental sort induced by emotional trauma, or mental stress and strain before suggestion, even in his own opinion, had got in its work. (I do not say that these mental symptoms are not capable of being induced by suggestion quite as much as the neurological troubles—indeed they are. I raise the point to show the limitation of Babinski's vision and his failure to grasp the hysterical "*pathological state*.")

Now let us assume simply as a working hypothesis that the "*pathological state*" of hysteria, however brought about, is a functional dissociation (or disintegration, or inhibition, or repression) of one or more of the normally integrated psycho-neurological systems, mani-

festing itself by loss of certain mental and neurological functions on the one hand, and the activity of certain other functioning systems on the other. This abnormal activity would express itself, because of the disintegration, in uncontrolled response to excitation (from within or without), commonly designated as automatisms. And let us assume that this abnormal activity may be manifested by either the remaining associated systems or by the disintegrated cast off systems. Such a condition, which it is generally agreed, I think, can be reproduced artificially by suggestion in hypnosis, always exhibits increased suggestibility as is the case in hysteria.

As examples of the loss of function in the *mental sphere* from such a dissociated state may be taken: the amnesias, confusional states, bewilderment, "twilight" states, sleep (normal or pathological) unconsciousness, aboulia, deafness, dumbness, blindness, the multiple or dissociated personalities, etc. In the *neurological sphere* we have: the paralyses, the anesthesias, the astasia-abasias, etc.

As examples in the mental sphere of the activity, or automatism, incident to the disintegrated psycho-neurological systems may be cited: the hallucinations, the deliria, the fixed ideas, the emotional mental states, etc. In the neurological sphere: the contractures, tics, spasms, tremors, convulsions, ambulations, etc.

The combinations of these two forms of troubles of the mental sphere give various clinical pictures, such as alterations of character, fugues, somnambulisms and the different well known types, some of which have been made classical by Charcot. Mind you I am not now concerned with the genesis of the pathological state, or its symptoms, but only with the concept of the state and its *relation* to its manifestations.

Now, having formulated this conception of the pathological state let us keep it in view as a working hypothesis while we follow Babinski in his exposition, bearing in mind that he apparently has no conception whatever of this "pathological state" and gives us no idea of what his mystical "state" may be. We are therefore permitted to suspect that he does not conceive of any state aside from the suggested symptoms. Suggested symptoms are for him hysteria.

The corner stone of Babinski's thesis, then, is that the hysterical accidents (pithiatism), very limited according to his conception as we have seen, are always the result of suggestion—auto-suggestion or hetero-suggestion. By hetero-suggestion he very properly includes the unguarded solicitude of those about the patient, contagion from

hysterics, and the medical examinations with their impressive apparatus well adapted to awaken the attention of the patient and to guide his imagination in directions often unforeseen.

As possible factors of auto-suggestion, it is true, he recognizes "the meditations of the subject," and "all his previous experiences and beliefs," but, so far as I am able to extract his meaning from the vague generalizations in which he explains himself, the active factor is a very specific *idea* on the part of the subject of a pathological symptom (e. g. anesthesia or paralysis), one that wills (or suggests) the hysterical "troubles." "The hysteric," he explains after drawing a similarity with a voluntary act, "seizes the idea of a pathological state [symptom?] and makes it a reality when that idea is forced upon him by its systematized affective elements [emotion]: that is to say when it awakens in the patient a desire for certain advantages, or obsessing anxieties (*inquiétudes*), or an abnormal need to astonish, to attract attention, in a word the infinitely varied motives which can induce the facile will to influence these subjects." In short the subject, governed by a variety of motives, simply *wills* the pathological syndrome and thereby becomes an hysteric.

This is delightfully simple, but I fear that mental mechanisms are much more complicated, involve many factors, and are much more difficult to analyze and solve.

That hysterical troubles are induced by psychological factors nobody, I think, nowadays questions. And that at times the exciting factor may be an immediate, direct suggestion—auto or hetero—or an act of will, conscious or subconscious, cannot be doubted in view of the numerous data at our disposal. But it is probably always conditioned by coöperating factors. Yet, even so, that this is always or generally the mechanism is another matter and one, I think, which cannot be accepted by students versed in the pathology of hysteria. The matter is not so simple as that.

I have no cause to quarrel with Babinski for insisting that hysterical *phenomena* can be suggested. Every neurologist has seen often enough examples of this in his practice and indeed is aware that he himself has suggested such phenomena, intentionally or unintentionally. Nor can any one doubt that a large proportion of hysterical stigmata, particularly those following traumatisms, have been so suggested, generally unconsciously, by the examining physician. But that all have been so suggested, or what proportion have been so suggested, is another question. Given a certain abnormal state of mind, symp-



toms can be manufactured almost *ad libitum*. In such a state the symptoms can be educated, just as by re-education they can be made to disappear.

But what is the state of mind? That is the problem. I defy any one to take any man in the street and by suggestion to create hysterical stigmata, or even to take a patient with organic nervous disease, such as tabes, or multiple neuritis, or a cerebral lesion, and create a hemi-anesthesia, or hemiplegia, or dumbness or deafness. You may, to be sure, hypnotize such a person and in the state of hypnosis suggest such stigmata. But now you are dealing with an artificially induced abnormal state of mind. We examine cases of organic disease, of multiple neuritis, and brain tumor and cancer of the liver with impunity, without fear of creating anaesthesia or limitation of the field of vision or paralysis. Why is this? And we place patients in the same ward and in adjoining beds with hysterical cases and they do not contract hysterical symptoms, though other so-called hysterical individuals may. Why is this? If the thesis were that the dissociated state of hypnosis may be identified in principle with hysteria, it would be much sounder.

What is the difference between the normal mental state of the man in the street and that of the person who has undergone some sort of psychological conflict, or trauma, or "shock" (whether from external or from internal forces), that the one is practically immune to hysterical stigmata by suggestion, and the other permits them to be created with ease? This is the crux of the problem.

When it comes to the sources and influences of auto-suggestion, no one will doubt that the "meditations of the subjects" and "all his previous experiences and his beliefs" play an important part as psychological factors in inducing hysterical troubles and particularly the hysterical state, but not in the way that Babinski supposes. According to my interpretation they form "settings," i. e., these experiences, etc., give meaning to ideas, create points of view, "sentiments" and attitudes of mind, and through the impulsive force of their emotions create conflicts between systems, or induce defense reactions that result in disintegration of the integrated psycho-neurological systems and automatisms. The mental conflicts, for instance, may result, through repression, by the force of one of the belligerent factors in dissociation of systems in the psychological or physiological spheres, and this dissociation may rob the personality of various functions organized or integrated within the given dissociated psycho-physio-

logical system. Or a conflict may create subconscious systems that express themselves in automatisms (tics, spasms, etc.). To interpret such a complex mechanism as suggestion is stretching the use of the word and giving it a meaning far beyond that of common usage. Everyone will admit that anesthesia or paralysis, for example, is a dissociation of the psycho-sensory system or the psycho-motor system, respectively. Whether it be effected by external suggestion or by internal forces, the fundamental underlying pathological state is dissociation.

But granting that the pathological state as well as the hysterical symptoms may be induced by suggestion alone, and that the complicated process involved may be comprehended under or excited by suggestion, this is not the real fundamental point in Babinski's theory. The fundamental contention is that in all cases suggestion is the causal agency, and that there is no other known agent, including particularly emotion, that can induce the symptoms.

The question is whether the dissociation, as a matter of fact, can *only* occur by the force of a direct suggestion (or act of will), or whether it may be the result of other forces, such as the discharge of an emotion (with an involvement of the system at issue in a wider disintegration); or, by the repressing, or inhibiting force of other psychological factors involving a complicated internal mechanism, etc. The capability of an emotional discharge to induce hysterical trouble is an important one to which Babinski has directed much attention, but only from the point of view of symptoms. It will be necessary to consider the question at length. But first I want to discuss the question whether such dissociations as anesthesia, paralysis, etc., can only occur as the result of a direct suggestion or a volition-idea.

We have various data at our disposal which allow an answer, and indeed many of these demonstrate that dissociation, particularly as the result or a form of inhibition, is a factor in the normal mechanism of mental and physiological functions. Without a mechanism permitting of inhibition and dissociation, normal mentation and neurological activity, such as the spinal reflexes, would be impossible. But, leaving that larger aspect of the question aside, I would point out that when a person, in a state of absent-mindedness, or in a "brown-study," or whose attention is deeply engrossed in reading, does not feel a fly crawling on his skin, or hear the ringing of a bell, or a passing street car, he exhibits dissociation of the psycho-sensory field, or, in other words, an anesthesia analogous to that manifested by hysterics.

Again, a subject who is performing automatic writing will be often found to have anesthesia of the writing hand. The dissociation of the motor system has robbed the personality of the associated (integrated) sensory field. In neither of these two examples can there be any question of the sensory dissociation having been produced by suggestion, if the word be used in its proper sense. The dissociation with the resulting anesthesia is brought about indirectly. Again, the functional amnesias are the result of dissociation, as can be easily proved experimentally and therapeutically, and yet they frequently follow immediately traumatism at the moment when the subject regains consciousness. In such cases they cannot be attributed to suggestion any more than when they develop in cases of multiple personality, with which every one ought to be familiar.

Amnesia in its various forms—retrograde, anterograde, etc.,—is one of the classical symptoms of hysteria. Immediately following a so-called "shock" it is a most common occurrence, and even frequently it is observed under circumstances which give the appearance of spontaneity, as in sudden fugues or somnambulisms. In the former case ingenuity is strained to the limit to find an auto or external suggestion; and in the latter, while we must assume a psychological cause, such as a mental conflict, anything like conscious "willing" the amnesia is too far fetched to be worthy of consideration.

I saw a case of so-called "shell shock" which was exhibited to me in a war hospital as a case of insanity. It was easy to demonstrate to the physician in charge that it was in reality a case of anterograde amnesia. Surely this was not suggested by the physician who mistook the real character of the symptoms, and are we to suppose that the affected soldier consciously imagined and willed a symptom of so strange a kind?

Then again, what are we to say of the phenomena observed in multiple or dissociated personality? Every one familiar with these phenomena recognizes that they are merely types of hysteria and knows that different phases of personality may exhibit bizarre stigmata which demand extreme credulity for the belief that they are the product of either auto or external suggestion. One case of my own, for instance manifested in one phase a remarkable form of complete anesthesia which I had never heard of before and which it is difficult to believe the patient had ever conceived of. It was discovered by chance. The patient was found to have lost every bodily sensation, so that, as she described it, she felt that she was "just mind without

a body." She not only did not feel touch, or pain, or muscular sensations, but did not know whether her limbs were passively raised or lowered; whether she herself moved them or not, as she readily did; whether she gesticulated, as she did; whether she smiled or frowned; or whether she stood up or sat down, or what her position in space was. In one phase of another case, the subject was completely anesthetic to touch and pain, unless vision could be employed conjointly with the tactile sense.

In some recorded cases the subject in one phase exhibited one form of paralysis, etc.; in another phase, a different form, in still another no paralysis at all, and similarly with other stigmata. Such cases are known to have exhibited such "troubles" immediately following "shock" without the intervention of a stage of "meditation." The personality seems to fall to pieces by magic, as in transformation scenes on the stage where a blow, or a signal transforms lovely youth into shrivelled old age, or a rock into a splendid chariot.

When alterations of personality are induced by hypnosis even then we may not be able to foretell what stigmata the new phase of personality may manifest, and different stages of hypnosis may exhibit different psychological and physiological defects without our being able to forecast them. Auto-suggestion, it may be said, is the causal agent. But the phenomena are too bizarre for even the wildest imagination to conceive.

I am citing these phenomena and the conditions under which they occur, not to maintain that hysterical troubles cannot be induced by suggestion, but rather to show that they can be induced by other causative agents and mechanisms.

In discussing the pathology of hysteria I might go on indefinitely quoting other hysterical phenomena and the conditions under which they are observed, showing that the former are capable of being induced by other forces than pure suggestion. It must be obvious that whether or not a given hysterical symptom has been induced by suggestion is a matter of fact and not one of principle and must be determined in each and every case.

Babinski's basic principle is that "emotion alone is not capable of inducing hysterical accidents," indeed that "when the human soul is shaken by sincere, profound emotion there is no longer a place for hysteria."

To maintain his thesis Babinski is obliged to show that no other agents can cause hysterical symptoms but suggestion (note that he

does not recognize the pathological state), and for this purpose he must eliminate emotion—the agent to which so much influence has been hitherto ascribed. If emotion can be eliminated, no agent, he assumes, is left but suggestion. “Without doubt,” he admits, “there is reason to believe, a priori, that physical concussion, and especially moral shocks, can weaken the personality, enfeeble the critical faculty and decrease sensibility and thus play an indirect rôle in the development of pithiatic troubles; but these agents act only in preparing the ground for suggestion. Are they capable, as has been maintained, of creating by their own forces, suggestion being wholly eliminated, the hysterical phenomena? In other words, a paraplegia, an hysterical monoplegia, for example, can they develop under the influence of an emotion without any antecedent mental representation, automatically, after the fashion of the secretion of the sweat glands, intestinal flux and crethema? Such is the problem, essential for whoever would solve the nature and mechanism of hysteria, that it is necessary to submit anew to investigation.”

In passing I would insist that this is a very inadequate conception of the problem. However, I will take it up for examination as laid down by Babinski.

This distinguished neurologist has given a great deal of time and energy to demonstrate that emotion does not induce hysterical troubles. And with this end in view he has examined situations, like the Paris morgue, which have been the scenes of much emotion on the part of distressed relatives, without finding evidence of resulting hysterical troubles. For, he argues, if emotion is capable of causing hysterical accidents, we should find them in such circumstances. It seems a pity he should have expended so much misdirected effort. With a sound conception of hysteria, and of the psychology of emotion, any one could forecast that his investigations would give negative results. No one would hold that a simple discharge of emotion, as a biological reaction to the environment, induces psycho-physiological disintegration and automatism. Emotions—fear, anger, etc.—are biological psycho-physiological instincts or instinctive reactions. In the course of life's experiences they become organized with ideas of objects—the mental experiences of life and the world—into sentiments and systems of sentiments and by their impulses give driving force to our antecedent thoughts, wishes, points of view, mental attitudes, etc. It is these mental systems, thus organized that, when unduly excited, are brought into conflict with opposing systems and by the discharge of

their emotional forces disrupt the normal psycho-physiological integration and equilibrium, repress certain systems, dissociate others, and give rise to subconscious activities that induce many varieties of automatic phenomena. The discharge of emotion, excepting when an element in a preformed system of ideas, probably rarely results in hysterical troubles, but accomplishes only its biological purpose and passes off without untoward effect. What is essential is the organization of the emotional instinct in a system of ideas and it is the whole system that, discharging its emotional impulses, induces disintegration. Failing such an organized system or "complex" we should not expect the disruptive effects.

In the second place, his contention is that hysterical phenomena never appear at the moment of, or immediately after the emotional shock, when the emotion is at its height, but that always "between the emotional shock and the presence of hysterical (pithiatic) accidents there is an intervening phase, sometimes quite long, which Charcot called the 'phase of meditation,' during which auto-suggestion or hetero-suggestion have the opportunity to intervene" and induce the accidents. In support of this view he cites the observations of numerous writers who had the opportunity in this war to observe so-called "shell shock" at the front and behind the lines. Babinski, seems at first to be supported by these observations, for it seems that those symptoms of hysteria which Babinski elects to call alone pithiatic or hysterical, that is the paralyses, anesthetics, etc., rarely developed at the time of the emotional shock but only appeared after an interval, when the soldier had reached some place behind the lines.

A study of the reports, however, shows that the cases, apparently without exception, exhibited at the emotional period immediately following the shock, hysterical mental symptoms of a very marked character. Amongst the symptoms commonly described are amnesias, hallucinations, deliria, inability to respond to questions, even when attempts were made to force a response, apparent incapacity to perform a voluntary act, states of hebetude, stupor, confusional states, states allied to fugues, mental dullness, irrational states, tachycardia, tachypnoea and tremor.

What are these, it may be asked, with the exception of the three last (which are only the physiological manifestations of emotion), but states of dissociation with automatisms, or unregulated and uncontrolled functioning of disintegrated psychological systems? They are from the modern point of view typical and pure symptoms of the hysterical pathological state. Amnesia, for instance, as already point-

ed out, is well recognized as a manifestation of dissociation. In these very cases, then, cited by Babinski in support of his thesis, we have evidence of hysterical manifestations induced by something else than suggestion, and we must remember that this something else is conditioned, at least, by emotion. It may be also pointed out in passing that these mental symptoms, following the discharge, may be brought within Babinski's own definition of hysteria in that they are capable of being produced experimentally by suggestion.

That certain symptoms like paralysis, anesthesia, dumbness, deafness, etc., do not appear until a later period may be a fact, as a matter of observation, but the real question is *why* do these particular symptoms appear only later, while other and mental symptoms appear at the height of the emotional discharge? It is a question of the **WHY**. The fact which seems to have been brought out by observations during this war is that the hysterical state manifesting itself by mental dissociation, can be induced immediately under mental stress and strain at the moment of the emotional discharge, while certain other symptoms, in the great majority of cases, develop only after a period of incubation.

Babinski seems to assume that because this latter class of symptoms develops only after a period of incubation that they must be due to suggestion, particularly hetero-suggestion, although auto-suggestion may be the genetic factor. To this assumption exception may be taken. That many hysterical stigmata, particularly the paralyses, anesthetics, the crises, deafness, dumbness, etc., have their genesis in psychological factors there can be no doubt, and I think that since 1885 there never has been any doubt. That we have all known for a long time. But this is far from saying that they are due to suggestion, whether auto or hetero. The genesis and the mechanism are far too complex for such a simple explanation. They may be called "defense reactions," if you like, according to one theory. But the psychological mechanism of a defense reaction is complicated. This may be due in individual cases to mental conflicts, to subconscious mechanisms of different kinds, etc.

Babinski's fundamental error is not recognizing that the hysterical state is one of functional dissociation and that any psychological factor capable of producing such a dissociation, whether it be emotion or a conflict, is capable of producing hysteria. The mechanism by which individual symptoms is produced is another problem. It may be suggestion, as we all know, or it may be a very complicated mechanism which still requires solution.

## THE CLINICAL PSYCHOLOGIST

BY DAVID MITCHELL, PH. D.

**T**HE field of the clinical psychologist is that of individual diagnosis and treatment. The term "clinical" suggests individual, rather than group or mass reactions. In medicine it has referred to the bedside practice of the physician, and is, therefore, individual. Likewise, professional activities among psychologists have set the tendency of making it refer to the condition of one person rather than to that of any number or groups of people.

In this respect, clinical psychology may be differentiated from that of several other types of applied psychology. Educational, vocational, or industrial problems may be individual from the psychological point of view, but each one differs in the sense that it is primarily a treatment of mass results.

Educational psychology takes up the problems of the rate of progress in school subjects, the period at which different elements of the curriculum may best be considered, the methods of instruction and the attitude of the children to class-room work. Progress in the various school branches, such as arithmetic, reading, spelling, writing, is measured by means of educational tests. They are largely psychological in their nature, but are devised and administered for groups rather than for any particular individual. The chief consideration is the average or group score, with the possible variation from that average. The score of one child is seldom of material importance.

Vocational psychology has to do with the determination of aptitudes and qualifications for specified occupations. It does not consider the individual in his relation to those aptitudes. Its point of attack is the question of those traits or qualities which are essential for proper functioning in a certain activity. In other words, it is the occupation or activity which is the point of attack and not the individual who might possibly engage in that occupation.

Industrial or commercial psychology has a number of phases. Advertising is one of the greatest industrial or commercial problems, and it is largely a matter of psychology or the reaction of groups to the method of presentation or method of appeal. The question for the psychologist is: How does this particular presentation, or how does this combination of appeals touch the great mass of people. In



other words, advertising is not concerned with an individual, but is concerned with the reactions of a group. Trade tests, while applied to an individual, are carried on with the chief point of attack being the efficient carrying out of the particular activity. It is a matter of classification into groups rather than understanding why one person does or does not adapt himself to the occupation. The processes in the industrial plant are considered rather than one's reaction toward them, or possibility of his adaptation to the task.

From all of these activities clinical psychology is differentiated by its special problem. In each one of them the individual may be considered and, in so far as he is, we may say that clinical psychology overlaps these other fields of applied psychology. This simply serves to emphasize the fact that the clinical branch is concerned altogether with the mental functioning of one person. The aim is to understand his ability, his emotions, his social reactions, to find out the existence of any special abilities or disabilities, and on the basis of all this information to make recommendations for his adaptation to a present or to a proposed environment.

The clinical psychologist may also be distinguished from the man of research interests. The clinician is a professional person, interested in the application of scientific principles or in the diagnosis and treatment of cases. The experimentalist, on the other hand, is interested in the determination of mental characteristics without regard to what happens to his subject. In the laboratory he makes investigations of the thought processes, the emotions, the learning process, and the various other characteristics, but with no intention of applying his findings to the conditions of his subjects. That is, the clinical psychologist as a professional practitioner may be likened to the physician who considers the symptoms of his patient and prescribes methods of treatment. The research psychologist is likened to the physiologist or anatomist in the medical laboratory who makes his detailed experiments to determine the structure and function of the organism.

*Preparation for Professional Practice:* Every one considers himself more or less qualified in the field of mental therapeutics. Every physician, every salesman, every artist, every author, and in fact nearly every one who has ever thought about the problems, describes mental symptoms, diagnoses characteristics, and suggests methods of treatment. This claim is made explicitly by a great many of them. It is implied by the statements of many others.

To a certain extent it is undoubtedly a justifiable claim, but only

in the same way that most people can claim to be physicians. All people have certain remedies which they are ready to use or to recommend for a friend whenever he has a cold or a fever, or when there is a general feeling of lassitude and fatigue. Sometimes these recommendations go to the extent of suggesting what is to be done in such diseases as scarlet fever, diphtheria, or pneumonia. While we recognize the skill of many of these "would-be" practitioners, our admiration is somewhat tempered since we know that they lack all specific preparation in medical fields. We now are so little in favor of the practice that we make it a penal offense for anyone to receive remuneration for such advice.

So far we have been much more tolerant of the person who picked up his knowledge of psychology in a haphazard, indefinite way. We are convinced that the practice of medicine is impossible without thorough grounding in the knowledge of medical sciences. Only recently, we have come to the conclusion that mental difficulties are as important from the social point of view as any physical disabilities. With our knowledge of the increased importance of the mental characteristics there has come a recognition of the necessity for thorough training in psychology for anyone who would offer professional advice.

It may occasionally be claimed, as it has been recently, that the situation with medical practice is different from that of psychological practice. We say that an individual who is suffering from diphtheria is not only in danger of death, but is also a source of contagion or infection for all other members of the community. With his physical health and with the welfare of the community from the physical standpoint, it has been argued that we must be much more concerned. As an actual fact, however, I doubt if any case of diphtheria can be a much greater social menace than a person who has had bad mental habits established by his type of experience. The education of each member of a group is more or less affected by the reactions of other members. The various mental characteristics are as directly effective in establishing social or anti-social reactions as is the physical condition of an individual in affecting the physical welfare of other members of the community.

Particularly is this true in the case of children whose emotional life is disturbed by the reactions of adult associates. The existence of fears, of feelings of inferiority, of self-consciousness, of abnormal attitudes toward the sex life, is, to my notion, much more significant in considering the welfare of the individual and the community, than the

physical condition of those suffering from colds, fevers or other physical disabilities. Our legislation today provides penalties for doing physical harm. The death sentence may be carried out for murder and assault may be punished by meting out penalties of greater or less severity. But our legal codes still ignore the effect of those actions which do not result in visible bodily harm. Yet I am convinced that frequently the results of these latter actions are much more calamitous for the individual and for his functioning as a member of the group. Society today is suffering more through undesirable mental habits than through any physical harm done to any group of individuals. The diagnosis and correction of the various emotional complexes which are the groundwork of faulty mental functioning should not be made by anyone not qualified for it by intensive training.

As a minimum of training, I would suggest the equivalent, at least, of the requirements for the degree of Doctor of Philosophy. I shall not try to outline the curriculum in detail, but there are some things of sufficient importance to merit mention. In the preliminary part of the course leading ordinarily to the bachelor's degree, considerable time should be given to a study of the languages in which the literature of the science is written. This would involve thorough understanding of the three modern languages, English, German and French. Obviously the first one should be thoroughly understood, and since so much of the literature of psychology and psycho-pathology is in the latter two the student should be sufficiently familiar with them to be able to understand the written discussions.

In the field of science the student should have a thorough course in biology, with some training in chemistry and probably in physics. The medical laboratory should contribute its quota of training. The anatomy and physiology of the nervous system are rather too much neglected. The psychologist preparing himself for professional practice should not be totally unfamiliar with the physical mechanism.

Either during the latter part of the undergraduate course or in the early part of the advanced work, a student should become familiar with the general problem of education and educational procedure. At the same time a study of sociology, with a knowledge of the development of social institutions, social customs or mores, and of our ideas concerning the reasons for and punishment of delinquency would be most appropriate.

After the training in biology, or possibly co-incident with it, psychology should be undertaken and continued, until a thorough under-

standing of the behavior of the human organism has been obtained. The equivalent of three full years' study would not be too much for this purpose. I cannot take time to outline fully the various courses. They should, however, cover thoroughly the topics of sense perception, memory, association, imagination, illusion, apperception, habit formation and the learning process, the nature of reflex and instinctive activities and the emotional responses.

Not by any means the least important is actual practice in the examination, observation and diagnosis of cases. The mental processes of normal subjects should be analyzed and a student's experience with cases of mental deviation, unusual intelligence, delinquency and other forms of abnormal behavior should be both intensive and extensive. In this training emphasis should be placed upon the necessity of an accurate technique, careful observation and a distinction of the latter from conclusions. That is, there should be a thorough training in methods of obtaining results and in the interpretation of them.

There are two related studies with which the student should be quite familiar. They are psychiatry and psychoanalysis. In psychiatry he should study the various types of mental disease and for this purpose should be given laboratory work in a hospital for the insane with seminar work which would involve three hours a week covering two years. In psychoanalysis, the important literary contributions must be digested. I would suggest at least a seminar period of two to three hours per week throughout one year. In this time the literature could be taken up and an analysis of cases considered. I believe that in the field where psychoanalysis has been so much the vogue the clinical psychologist will find one of his most important problems. We do not need to make any assumption as to one or two fundamental causes of social or mental mal-adaptation. We do need to recognize, however, that great numbers of people who cannot be classed as psychopathic or insane are yet badly adjusted socially and mentally. It is within the province of psychology to make an analysis of these cases, to diagnose causes and to prescribe methods of treatment which will bring about the desirable mental and social adaptation.

It is obvious that the psychological associations can have but little direct influence on the courses offered in many of these subjects. The departments of sociology, biology, languages and education, as well as the laboratories of physiology or neurology will prescribe their own procedure. In psychology, however, the influence of the association should be and I believe can be enormously beneficial. We have

reached a stage in the development of the scientific procedure that a standard of efficiency might well be recommended. I believe that the various departments of psychology should confer and co-operate to such an extent that training in psychology for professional purposes may be maintained at a uniformly high standard.

*The Problems of Clinical Psychology.* A brief outline of the problems which a clinical psychologist has to face, is now appropriate. By virtue of group tests children or adults may be divided into groups, consisting of individuals with approximately the same degree of intelligence. After this classification, however, it will be found that there are some individuals who do not adapt themselves to the particular group in which they are placed. They must be examined by the clinical psychologist. The cause of their faulty adaptation must be determined by a *psychological analysis* of the difficulties. It may be that the classification was faulty in the beginning, and that with a transfer to another group, and consequently a new set of stimuli, the adaptation will be satisfactory. On the other hand, there may be peculiarities or idiosyncracies, special abilities or disabilities, which make the adaptation of that individual extremely difficult. A diagnosis of causes, with a recommendation for curative measures will then be made by the clinician.

Another field in which clinical psychology should find a wide opportunity is in that of functional disorders. Ordinarily this problem has been supposed to be within the realm of the psychiatrist or neurologist. It is conceivable that organic lesions might sometime be demonstrated, but according to present knowledge, it is largely a matter of nervous or neurone excitability stimulated by an unfortunate or undesirable environment. An understanding of the effect of the stimuli with consequent modifications should bring about a readjustment. The clinical psychologist who qualifies with the training outlined will see in these cases an opportunity for service of enormous value.

There is still another group of cases which has not been considered by the psychiatrist or neurologist, yet whose mental adaptation is very faulty and for whom curative measures should be prescribed. The various emotional factors, such as fear and anger, or the sex instinct, have been responsible for many of these faulty developments. Fears, both reasonable and unreasonable, have been developed and later suppressed without a conscious analysis of the causes and without an understanding of the situation responsible for them. In other

words, there has not been a proper direction given to the emotional energy, and somewhere in the field of unconscious operations the emotional effect is operating to produce faulty mental and social adjustments. Many of these cases are considered by the ordinary observer to be quite normal people. Occasionally they are recognized by the expert on casual observation. Usually no suspicion is aroused but I believe that many are functioning at a lower level of efficiency than their native ability and capacity warrants, and that with proper psychological analysis causes could be determined and measures of cure recommended. The clinical psychologist will have a glorious opportunity for improving mental efficiency as he engages more freely in this proper field of activity.

I would present just one illustration of the type of person who may be described in this way. There came to me several months ago a woman who for the last five years has, to all ordinary appearances, made satisfactory adjustments both from the mental and social point of view. About the beginning of the period she married and apparently the marriage has been successful. The woman seems to carry the responsibility of wife and mother quite well as far as the casual observer reports. Her own story, however, gives one an entirely different impression. Mentally she is distressed to such an extent that proper functioning seems practically impossible. Her activities as a home maker do not satisfy the 'inner urge' or emotional drive. Obviously they cannot be satisfactorily carried on. I am confident that until we have developed in her a courage and enthusiasm for certain artistic efforts that she will never be as efficient as she might, either mentally or socially.

The story of her life is extremely interesting, and can be considered unusual, I am convinced, only because we do not know the stories of the lives of very many of our associates. Left an orphan at the age of six, she was brought to this country by a married sister with whom she lived until she was about fifteen years of age. During that time her life was anything but happy. The memory of it is distressing at the present time. Dressed more shabbily than her playmates and constantly chided and condemned as a useless burden, she finally believed it. The chief result was to develop in her a feeling of inferiority, from which she has never recovered. At the age of fifteen she ran away from her sister's home and went to live with some friends.

After considerable discussion and further trouble she was allowed

to remain with these friends and to enjoy something of life's opportunities. She attended a church in which the music seemed to give her great delight, and was one day heard singing by a master musician and vocal teacher. Through his efforts she was given aid in the development of her talent, and about ten years later had a contract which called for remuneration for her to the extent of \$450 per week. During her training she had overcome the feeling of inferiority to such an extent that she had been able to do this work, but according to her own report she was forever apprehensive of failure. Her efficiency was decreased because she could never get away from the idea that people were judging her as quite inferior.

She finally was encouraged to make another effort for further improvement, and went to Europe to study under a very famous master. Whatever this master's skill in developing other people's talents was, he failed utterly to appreciate the type of mechanism with which he was dealing in this case. Instead of encouragement he gave condemnation, and from the standpoint of the particular person with whom he was dealing his condemnation was given in a most brutal manner. After various efforts to overcome the feeling which he engendered, and to continue with her studies, this "prima donna" whose name would be recognized by many, even if given now, gave up the attempt to further cultivate her talent and returned to this country with no ambition, or at least with not sufficient courage to continue as she had so gloriously begun.

Her marriage, shortly after her return, was considered a haven of refuge, an opportunity to get away from the mental conflicts and from the fears which she suffered. As far as the fundamental talent is concerned, there is little doubt of its enormous social value. But it will be a matter of months, if not of several years, before confidence is sufficiently re-developed that this person will be able to function mentally and socially in the way for which her native ability and her original talent qualified her.

Whatever the claims of psychoanalysis and psychopathologists may be, in my opinion it is with such cases as these that clinical psychologists will find a wonderful opportunity and, by virtue of knowledge of psychological processes, will be able to be of enormous value and benefit to them.

## A LECTURE ON THE ABUSE OF THE FEAR INSTINCT IN EARLY EDUCATION

BY BORIS SIDIS

“**C**HILDREN achieve good by fear of punishment” thus psychologizes a writer of editorials in a far advanced paper of a far western, progressive settlement, “or,” he goes on philosophizing, “good is thrust upon them by their teachers, their parents, and the policeman on the beat. It is the natural instinct of the human animal to lie and to steal. Why do we spank them as soon as they are weaned?” “Why is it” mused Fagin, the educator of *Oliver Twist*, “why is it that children enjoy picking pockets, and old folks are fond of stolen goods?” This birch pedagogy the learned editor regards as good Biology. Then the wise Solomon is cited with his saying: “He that spareth the rod hateth his son.” With his sense of western chivalry the editor thinks that girls are better, but he does not say what he would do with the Solomon’s rod in the case of the fair sex. He concludes, however, his educational wisdom which for some reason or other he prefers to dub as biological, whatever he may mean by it, by saying that: “We are not thoroughly convinced that the elimination of the rod as a correctional instrument has served to make the world better or wiser.” I am not quite sure that this scientific editor expressed the opinion of all his western colleagues, but it shows what a far advanced western editor may offer to his reader as the most advanced biological thought by drawing on the good commonsense of Mother Goose and on the proverbial wisdom of King Solomon for the pedagogic edification of his western audience.

This wisdom of viewing the child as a little brute and training it by fear and force is not confined to editors, but is also maintained by certain types of educators. “Obedience and discipline are the mainstay of the family and the school,” told me a well known educator, a principal of a normal school. “I control my children with kindness, if possible, and if needs be, by force and punishments.” The child is regarded as a sort of a little beast, a kind of young ape, at best a little savage. The child, accordingly, is trained to act not by the light of reason, but by the command of superior force. The child is ruled by fear. Our young generation is trained by fear into discipline and



obedience. We thus suppress the natural genius and originality of the child, we favor and raise mediocrity, and cultivate the philistine, the product of education, ruled by rod, not by thought.

As a protection against fear the child, in self defense, becomes secretive, evasive of truth, and cowardly of action. These traits of character, acquired in early childhood, due to training by rod, fist, intimidation, and fear, become often ingrained in the very soul of the child to last him his life long. Seared by the rod, the scourge, and the fist the child often emerges a moral and intellectual cripple. Cowered and terrorized by the awakening and cultivation of the most powerful of impulses, the impulse of self-preservation and the most uncontrollable of all instincts, the fear instinct, the child can never fully rid himself of all the distressing, morbid consequences. Fear will stay with him and dog his steps all his life long.

As I have pointed out in my works on abnormal mental life, fear is the most fundamental of animal instincts; it is the companion of the most primitive impulse of self-preservation, and together they form the source of what is known as psychopathic maladies, or functional mental diseases, almost infinite in the variety of their manifestations, often extremely virulent in their mental disintegration.

Once this fear instinct and its companion self-preservation are aroused morbid mental life grows like an avalanche in its downward course. In later life this impulse of self-preservation and fear instinct become manifested in various ways, giving rise to the most distressing nervous and mental symptoms. In my medical practice, as specialist of nervous and mental diseases, I have again and again traced the worst forms of functional maladies to the impulse of self-preservation and fear instinct, aroused by education and unfortunate experiences in the early life of the patient.

Training by fear, submission, and obedience inhibits the development of the rational controlling element of the mind, brings forth the lower reflex automatic, subconscious side of mental life, heightens the suggestibility, opening wide the door to all kinds of nervous and mental germs, weakening the mental and moral constitution of man, tormenting him with the great array of obsessions, characteristic of psychopathic diseases in which the suffering of the patient is often greater than that experienced in many diseases of a purely organic nature. Man becomes unreasonable, capricious, driven as he is by the all-powerful impulse of self-preservation and by the furies of the fear instinct. *The centripetal force of self-preservation with its centrifugal*

*fear-instinct make the victim revolve in the same recurring orbit of automatism round his own ego as a centre of attraction.* Being pitilessly driven by the furies of his fears, he is always hiding and running from life, he is afraid to act openly, fairly and squarely. He always dodges the issue, always in a state of indecision, lacking self-confidence, independence, self determination, and self control. Double dealing, deception, lying, hypocrisy, and an illimitable selfishness form the main traits of his character, the very traits which the wise western editor and educator placed in the souls of the children known to him. The child is by some people, even with a literary turn of mind and having an influence on the community, regarded as a little brute, a little savage, born to deception, to stealing, to crime and vice. No wonder with such views of the child's nature, the little ones are advised to be treated by punishments, by corrections, by the rod, the whip, and the stick, generally by fear and by violence, a training unfit even for dogs. And still when we turn to the really great thinkers of humanity, we find that the child is considered as free from vice, crime, and sin, that perversions, delinquencies, and vices are impressed on the young by family, companions, and society of adults. From Plato and Aristotle to Montaigne, Locke, Rousseau and Tolstoy the same or similar verdict is given as to the nature and character of the young.

"We should not permit" says Plato "the artists of crafts (note: such as our modern movies) to impress signs of an evil nature, of dissoluteness, meanness, and ungracefulness, so that our young generation may not be reared amongst images of vice, as upon unwholesome pastures, culling much every day by little and little from many places, and feeding upon it until they insensibly accumulate a large mass of evil in their souls. We ought to have artists of another stamp who by the power of their genius can trace out the nature of the fair and the graceful, that our young generation dwelling as it were in a healthy region, may drink in good from every quarter, whence any emanation from noble works may strike upon their eye or upon their ear, like a gale wafting health from salubrious lands, and from their early childhood bring them into love and harmony with true beauty of reason. We should give the children an education in which rhythm and harmony may sink most deeply into their soul." "Children," tells us Aristotle, "should not be brought in touch with evil, or with anything that may suggest vice and hatred." From their infancy the young should be surrounded by an environment of grace, harmony, and beauty, by the good, the true, and the beautiful.

Education by force, punishment, repression, rod, whip, and knout will only train a generation of slaves.

Plato insists that "you must train the children to their studies in a playful manner, and without any air of constraint, with the further object of discerning more readily the natural bent of their characters." Montaigne with his deep insight into human passions and clear understanding of human life declares that vigor and liberty become fully extinct when minds become subjected to caprice, authority, and phantasies of others. According to this great critic of all dogmatism, education should be directed by a sweet-severe mildness. Children should be treated not by fear and cruelty, but with kindness and gentleness. Nothing so much degrades and bastardises a young nature as violence and compulsion. He seems to lose his patience and genial nature when he comes to write of the school. "The school is a very prison of captivated youth," a prison where misdeeds are punished before they are committed. Even old Quintillian was not slow in noticing the fact that imperious authority compulsion, and punishments bring many dangerous consequences. Helpless, defenseless as the child is it should not be treated by a stern and frowning countenance and with hands full of rods. "I would do" says Montaigne, "as the philosopher Speusippus did who caused the statues of Gladness and Joy, of Flora and of the Graces to be set up round about his school house," winding up with the following epigrammatic saying: "Where their profit lies there should also be their recreation!" Montaigne's education was of the precocious type in which love was the predominant feature. "The chief thing my father required of those into whose charge he had committed me was a sort of well conditioned mildness and ease of disposition. For amongst other things he has specially been persuaded to make me taste and apprehend the fruits of duty and science by an unforced kind of will, and of my own choice; and without compulsion or rigor to bring me up in all mildness and liberty." Latin being the literary language of that time, Montaigne could talk Latin before he could understand French. He was spoken to in Latin "before unloosening of my tongue, when being yet at nurse." "I entered college at the age of six. . . . My Latin was corrupted. . . . I graduated at the age of thirteen, and had read over the whole course of philosophy."

Locke tells us that "a slavish discipline makes a slavish temper. The child submits, and dissembles obedience, whilst the fear of the rod hangs over him. Beating them (children), and all other sorts of

slavish and corporal punishments, are not the discipline fit to be used in the education of those we would have wise, good, and ingenuous men. . . . Playing and childish actions are to be left perfectly free and unrestrained. . . . The right way to teach them (children) is to give them a liking and inclination to what you suppose to them to be learned, and what will engage their industry and application. . . . Children being restrained by their parents only in vicious things (which in their tender years are only a few) things, a look or a nod only ought to correct; or, if words are sometimes to be used, they ought to be grave, kind and sober, representing the ill or unbecomingness of the faults, rather than a hasty chiding of the child for it. . . ."

If we turn to Tolstoy, the great artist and reader of the human heart, we find this attitude, as to the freedom of children from vice and crime, still more emphasized. "There are two important rules in education" writes Tolstoy. "(1) Live well according to the highest moral ideal. (2) Perfect yourself continually, and conceal nothing from your children, especially your faults, mistakes, and shortcomings. Children are much more sensitive morally than are adults. Without saying or even being directly conscious of it children not only see the faults of their parents, but even the worst of all faults, their hypocrisy. . . . The education of children is self-perfection." Tolstoy is strongly opposed to the way of education as given by the western editor, by trainer and policeman in public school and police court. Such sources are contaminated. Disease, corruption, and degradation alone can result. "Terrible" he says "is the corruption of the mind which the (educating) authorities subject the children during the course of education. . . . Public education, such as we have at present, is directly and artfully organized for the moral corruption of children. Make all sacrifices to keep children away from school." Finally he makes the significant statement, true and beautiful as to its meaning: "If I had to choose,—to people the earth with saints as I am at all able to imagine, but with no children, or with such people (full of imperfection) as we have at present, but with constant coming of new generations of children,—I would choose the latter."

He who is regarded as the greatest of teachers of humanity in admonishing his disciples and apostles held out the child as the ideal of human greatness. "And there arose a dispute among them which of them should be the greatest." When Jesus saw the thought of their heart, he took a little child, and set him by his side, and said unto them: "Whosoever shall receive this little child in my name receiveth

me." (Luke 9, 46). "And they brought him little children that he should touch them: and the disciples rebuked them. But when Jesus saw it, he was moved with indignation, and said unto them, Suffer little children to come unto me; forbid them not; for of such is the Kingdom of God. Verily I say unto you, Whosoever shall not receive the Kingdom of God as a little child, he shall in no wise enter therein. And he took them in his arms, and blessed them, laying his hands upon them." (Mark 10, 13). This deep, sympathetic insight into the child's nature and genius, this profound love of the child, touching as it is in its simplicity and grandeur will ever remain at the very basis of all true human education. Put the little one in front of you, take him tenderly in your arms, give him your heart's blessings, surround him with the halo of love, all this will ever go to form the eternal image of the greatest of teachers of humanity.

One important point claims our attention in the early education of children. We should immunize our children against mental microbes, against superstitions and prejudices, against all forms of harmful beliefs, as we vaccinate our babies against small-pox. The cultivation of critical judgment and the knowledge of good and evil form the powerful constituents for the neutralization of virulent toxins, produced by mental microbes.

We should not at the same time neglect proper conditions of mental hygiene or mental sanitation. We should not people the child's mind with ghastly and ghostly stories, with uncritical beliefs in the supernatural, and with article of creed which under the cloak of love are charged with arrogance, intolerance, and hatred. We must guard the child against all evil fears, force, violence, superstitions, prejudices, and credulity. Plato in his immortal dialogues refers to this point in early education: "What then is the education to be? Perhaps we could hardly find a better one than that which the experience of the past has already discovered, which consists, I believe, in gymnastic for the body, and art for the mind. And shall we not begin with the art, the education of the mind, rather than with the education of the body?—Undoubtedly we shall.—Under art or music we shall include narratives, or not?—Yes, we shall.—And of narratives there are two kinds, the true and the false?—Yes. And must we instruct our pupils in both, but in the false narrative first?—I do not understand what you mean," Adeimantus, his interlocutor replies.—"Do you not understand that we begin with children by telling them fables? And these, I suppose, to speak generally, are false, though they may con-

tain some truths; and we employ such fables in the treatment and education of children at an earlier period than gymnastic exercises.—True.—That is what I meant when I said that art or music ought to be taken up before gymnastic.—You are right,—Then you are aware that in every work the beginning is the most important part, especially in dealing with anything young and tender? For that is the time when any impression which one may desire to communicate is most readily stamped and taken.—Precisely so.—Shall we then permit our children without scruple to hear any fables composed by any authors indiscriminately, and so to receive into their minds opinions generally the reverse of those which, when they are grown up to manhood, we shall think they ought to entertain?”

Aristotle follows his great teacher Plato by laying down the fundamental rule of education: “We should be careful what tales or stories the children hear. For the sports of children are designed to prepare the way for the business of later life.” “From an earliest age all that is mean and low should be banished from their sight and hearing. . . . No image or picture representing unseemly action should offend the eyes of the young.”

We should counteract the baneful influences of the pathogenic, pestiferous mental microbes which now infest our social air, since the child, not having yet formed the antitoxin of critical judgment and knowledge of good and evil, has not the power of resisting mental infection, and is thus highly susceptible to mental contagion, on account of his extreme suggestibility. The cultivation of credulity, the absence of critical judgment and the lack of recognition of good and evil, with consequent increase of suggestibility make man an easy prey to all kinds of social delusions, mental epidemics, religious crazes, financial manias, patriotic wars, enthusiastic parades, resulting in slaughter and plagues which have been the baleful pests of aggregate humanity in all ages, and more specially in our times when the wave of social suggestibility of the worst type spreads like wild fire throughout the world. As long as the child will be trained not by love, but by fear, so long will humanity live not by justice, but by force. As long as the child will be ruled by the educator's threat and by the father's rod, so long will mankind be dominated by the policeman's club, by fear of jail, and by panic of invasion by armies and navies.

There are in the United States about half a million insane, while the victims of psychopathic, mental maladies may be counted by millions. Now that the war is over, there will come thousands upon thou-

sands of nervous and mental wrecks, under the name of shell shock or war shock, the unfortunate results of nervous exhaustion and fear shock produced by the war. Even before the war fully half the number of patients treated by the general practitioner were psychopathic in character. After this terrible war the increase of psychopathic cases will be enormous. Insanity can be alleviated,—but much, if not all, of that psychopathic misery known as functional, mental diseases is entirely preventable. For it is the result of our pitiful, wretched, brain-starving, mind-crippling, terrifying and terrorizing system of education.

In my medical work in nervous and mental diseases I have become impressed with the fact that the impulse of self-preservation, accompanied by its satellite, the fear instinct, plays a prominent rôle in the causation of psychopathic diseases. At the very outbreak of the war I predicted the occurrence of many cases of psychopathic diseases, known under the term of shell-shock or war-shock, which are sure to develop under the strenuous conditions and dangerous as well as poisonous environment full of favorable stimuli for the awakening of the impulse of self-preservation and its associated fear instinct. To quote from my work on *"The Causation and Treatment of Psychopathic Diseases"*: "In the present fearful war of European nations (this was written before United States entered the war) the pressure of invasion by the Teutons and their allies, a war unparalleled in the history of humanity for its extensive brutal destructiveness, a war in which all the inventions of ages are made subservient to the passions of greed, hatred, and ferocity, having one purpose the extermination of man, a war surpassing all battles waged by man, in such a calamitous slaughter of nations, the fear instinct comes to the foreground, claiming its victims, working havoc, among the frenzied, struggling armed masses and and terrified, stricken populations."

In my clinical study of numbers of cases under my medical care I have become convinced of the preponderant influence of the impulse of self preservation and fear instinct in early childhood in the causation of psychopathic nervous and mental maladies. Most, in fact we may say all, of functional, nervous, mental diseases have their origin in early childhood.

An early, suggestible mental life brought about by intimidation, by a persistent system of inhibitions, by overstimulation of the impulse of self-preservation and its associated fear instinct in early childhood are among the important factors of psychopathic diseases in later

life. In my work "*The Psychology of Suggestion*" I proved by a series of experiments that the conditions of suggestibility are: Fixation of the Attention, Monotony, Limitation of Voluntary Movements, Limitation of the Field of Consciousness, Inhibition. I have shown that these conditions are favorable to a disaggregation of consciousness. I have also pointed out that a disaggregation of consciousness with an inhibition of the controlling, waking consciousness is one of the important conditions in the causation of subconscious states with their abnormal suggestibility. In other words, the inhibition of the personal self, or even the limitation of the personal self, helps the formation of dissociations which constitute the soil of all psychopathic diseases. When the person, on account of a narrow training and a limiting system of education, based on force and fear in early childhood, becomes narrowed down in his range of knowledge and comprehension, when his superstitions and prejudices in mysterious agencies, such as transmission of telepathic "disease and death thoughts" and fears of various sorts of a spiritualistic, or Christian Science beliefs, and other religious faiths of the mystical types are impressed on uncritical and undeveloped minds, the predisposition to mental disaggregation and consequent psychopathic diseases becomes strongly pronounced. With the limitation and inhibition of the critical personal self, with the limitation and narrowness of personal life interests, there goes an increase of the sense of the unknown and the mysterious, often cultivated by religions based on impressive mysteries and superstitions with the baneful consequences of the development of the impulse of self-preservation and the fear instinct,—the cause of psychopathic diseases.

An uncultivated personality with a limited mental horizon, with a narrow range of interests, a personality sensitive to fear inhibitions, is a fit subject to all forms of obsessions. The fear instinct, fostered by mysteries, frights, scares, dread of sickness, dread of the moral mind and its shadows and fear of thought-transmission of deadly mortal ghosts of ideas, entertained by superstitious sects known by the pompous name of Christian Scientists, is a fundamental factor in the causation of abnormal mental states termed psychopathic. Fear impressed by moral and religious injunctions and duties by means of physical punishment, or by constant scares of punishment to come in this world or in another world, the enforcement of social taboos with the consequent dread of failure, degradation, and loss of character,—all go towards the cultivation of the impulse of self-preservation and fear instinct which in later life form the soil of functional psychosis with all



its baneful effects and morbid symptoms. Thus a psychopathic patient writes in his account: "I dwell on my childish acts, because of my religious training, because of the superstitions charged with religious and pseudo-moral emotions."

Perhaps a few concrete cases will bring out more vividly the fact of the pernicious effect of early education by means of force and fear. I have studied for years the many patients who have come under my medical care and treatment. A close examination into the history of development of the trouble invariably brings one to the same sources of mental disease: Inhibition of the critical self in early childhood by means of force and fear, the overgrowth of the uncritical suggestible subconscious self with an abnormal hypertrophy of the impulse of self-preservation with its allied fear instinct.

As illustrations I give a few extracts from the many cases studied and treated by me:

A patient of mine, a professor in mathematical physics, a man of the highest achievements in this branch of science, writes: "I have always had a great fear of the supernatural when left alone. I am never afraid of robbers when alone at home, or animals when alone in the woods, but I am mortally afraid of the sudden appearance of some mysterious unknown, or of some departed, as, for instance, the ghost of one of my parents. This was always so and is so today, perhaps because I was very much alive to the situation at the time of my mother's death (my age eight) and of my father's death (my age eleven)."

A patient of mine, a physician, suffering from acute religious melancholic depression writes in his notes to me: "It is difficult to place the beginning of my abnormal fear. It certainly originated from doctrines of hell which I heard in my childhood, particularly from a rather ignorant woman who taught Sunday school. My early religious thought was chiefly concerned with the direful eternity of torture that might be awaiting me, if I was not good enough to be saved."

Another patient of mine, a bishop's wife, suffered from insomnia, from nightmares, from panophobia, or general fear, dread of the unknown, from claustrophobia, fear of remaining alone, fear of darkness, and numerous other fears and insistent ideas. All these morbid conditions were traced by me to impressions of early childhood. When at the age of five, the patient was suddenly confronted by an insane woman suffering from attacks of maniacal excitement. The child was

greatly frightened. Since that time she became obsessed with the fear of insanity. When the patient gave birth to her first child, she was afraid that she and the child would become insane. Many a time she had the feeling that they *were* already insane. Thus the fear of insanity is traced to an experience of early childhood, an experience which, having become subconscious, has been manifesting itself persistently in the subconscious.

The patient's parents were deeply religious of the good old puritanic type. The child was brought up not only in the fear of God, but also in the fear of the devil. Being sensitive and imaginative, the devils of the Gospel were to her stern realities, all the more so as the family believed in them as Gospel truth, and she was often threatened into good behaviour by interposition of the action of some diabolical agencies which punish little girls for not being good. The patient was brought up on brimstone and pitch from the bottomless pit for sinners and unbelievers. Every Sunday she was taken to church to hear a preacher who used to give her the horrors by his vivid descriptions of the tortures of sinners in the depths of hell. She was in fear and anguish over the unsolved question: "Do little sinners—girls go to hell?" Various states of fear dogged her steps all her life long. Unless specially treated fears acquired in childhood last throughout life.

I call your attention to a short account of a patient of mine, a prominent member of the Christian Science church. Among other troubles the patient was obsessed with a fear that her husband, also a Christian Scientist who also came under my medical care, had committed some heinous crime the character of which she could not fathom. Christian Science could not cure them of that mortal sin, and they came to me for relief. "Even if my husband" she told me "should confess to me the most awful of crimes, I would still suspect him of worse ones." A letter from the patient may best show her state of mind. "There is nothing new to tell you. It is the same old, pitiful story, only varied a little from day to day. I have no rest, not a moment's peace of mind. I lie awake for hours at night, sometimes the whole night; my days are full of anguish and unrest. . . . I am truly a crushed and heartbroken woman, and would almost be willing to give up the struggle, were it not for my dear little children who are dependent on me." Now an examination of the case disclosed the fact of training by fear in the early childhood of the patient's life. The patient had in early life a severe religious training,—an

intense faith in mysterious agencies was cultivated in her by the family which had been faithful adherents of Christian Science for years. She herself became one of the active members of the church. The patient was specially imbued with the noxious superstitious belief, current among Christian Scientists,—the belief in telepathic influences. She had implicit faith in the transmission of evil influences by thought-transference, a sort of mental wireless telegraphy which now forms the delusion not only of Christian Scientists, but also of many unbalanced psychopaths, insane and demented in asylums. She is firmly convinced in the presence of telepathic powers of "death-thoughts" sent by some wicked members of the Christian Science Church. She in fact even knows the lady, a Christian Science reader, a lady of unusual telepathic powers, who has been sending to her those evil telepathic influences. Fortunately that malicious lady, the reader of "Science and Health with a Key to Scripture," died, and my patient felt much relieved.

I wish to call your attention to another case investigated and treated by me with the co-operation of Dr. Morton Prince. The patient, a Russian, suffered from epileptiform attacks on the right side of the body. The whole right side was involved in the attack of spasms; the side was anaesthetic and analgesic,—the patient did not respond to touch and pain sensations on that side. The patient left Russia on account of religious persecution. Since childhood he lived in an atmosphere of fear and violence. A close examination revealed the history of the case which can be given here but in a few words. The full account of it was published in a medical journal. When about the age of sixteen the patient attended a ball in his native town. After midnight he was sent out to look for a ring lost by him on the way to the ball. The young fellow was superstitious in the extreme. His early education was quite neglected,—he could neither write nor read,—he had a firm belief in sprites, spirits, and ghosts. On his way he had to pass a cemetery. He became frightened—it seemed to him that somebody was after him. He fell down, and became unconscious from intense fear. In this unconscious state he was picked up and brought home. His present epileptiform attacks date from that incident. He suffered from major attacks reproducing the accident at the same date and at the same hour when the incident occurred. The attacks, in short, reproduce the original accident as well as the condition of fear, convulsions, struggles, unconsciousness with resulting

anaesthesia on the same side on which he fell in his panic of ghosts coming to attack him from their graves in the cemetery.

Here is another case: A patient of mine, a young lady suffered from all sorts of nervous troubles and mental depression. The history of the case may be given in the following outline: As a child the patient was sensitive and nervous. She was brought up in fear, and was extremely impressionable. She liked to listen with trepidation to stories of spirits, goblins, and ghosts, and was in mortal fear of evil agencies and disabolical influences. She did not fare any better in her sleep, since she suffered from frightful dreams and nightmares, developed in her by the general state of apprehension. The patient passed her childhood in continuous fear of unknown and mysterious influences, surrounding her on all sides. Later on the fears apparently lapsed, but they really did not disappear—they became subconscious. It was these subconscious fears of early childhood that were manifested in the stress and worries of fully developed womanhood as states of anxiety of some mysterious impending evil,—the basis of her nervous condition.

I cite here a few extracts from the rich variety of autobiographical notes, submitted to me by my patients in the course of my investigation and treatment. "The earliest recollection of my fear that I have" writes a patient suffering from a severe mental trouble "goes back to my early childhood. I heard that wicked people would be judged after death and irrevocably sentenced to eternal torture in fire, and the idea raised a feeling of the most intense horror in my mind, lest I should not come up to the necessary standard in that dread day of judgment. I used to resolve to be good, particularly on reflection after going to bed, that I would be better so as to escape. However, the fear was rather vague.

When I got to be about eleven or twelve years old the fear got to be concrete and more constant. Then I feared that some remark I had previously made about God might have been blasphemy against the Holy Ghost which the Bible says is not pardonable in this and the next world. . . . By the time I was sixteen I had become very much demoralized, afraid of facing my fear. I went all to pieces with fear. . . ."

Another patient of mine, an engineer of ability, gives the following account: "You will remember I told you that my step-father was a liquor-dealer. Throughout the time he was in business we either lived over the bar-room or else lived in the place where the liquor was sold. My

step-father was a heavy drinker, a man of violent nature, and decidedly pugnacious. As a child I have been beaten, terrorized by my step-father, and scared to death by drunken brawls. Many a night have I been dragged out of bed by my mother who would flee with me to a neighboring house for safety. Until I was seventeen years old I lived in continuous terror of something going to happen. If my step-father was arrested by the police, our home would be the scene of turmoil. One night he came home all covered with blood as the result of a fight with thugs. Another time he left home with a pistol for some quarreling drunks, and returned shot through the hand. My step-father has been subject to nightmares nearly all his life. He would cry and moan, unable to move, until someone would shake him out of it. He was terribly afraid of them. I remember he would say that he would die in one of the attacks. I used to be left alone with him quite frequently, and I stood in constant fear of his dying. If he fell asleep (as he frequently did in the day-time) I would either wake him or watch his respirations, to see if he was alive. At other times I have been awakened in the night by his cries, and would assist my mother in bringing him to consciousness. It was during one of these attacks that I became aware of my heart palpitating, and whenever he had such a spell, I would be in a state of fear and excitement for some time after. He would have these nightmares nearly every night, and sometimes four or five times in one night. I began to have attacks of dizziness in the streets, and finally, one day, all the symptoms and fears of the attack came on in school. From that time on I have watched my respiration, suffered from dizziness, from depression, and sadness."

In the autobiographic notes of another patient, a physician of high standing in his profession, the account of the history begins with the following significant statement: "I was bred in fear from my childhood. My training and education were essentially religious, of an authoritative and terrorizing character." Other patients preface similarly their autobiographic accounts of the history of their troubles with words no less unmistakeable as to the significance which the oppressive fear system of education played in the misery, suffering, and ruin of their life. Thus one patient opens her autobiographic account with a statement which in my experience is fairly characteristic of thousands of other cases, in fact, it may be regarded as typical of all psychopathic afflictions: "I am a married woman of fifty-two. All my life I have been imprisoned in the dungeon-keep of fear. Fear paralyzes me in every effort . . . In childhood every-

thing cowered me . . . I was in agony of fear." . . . She concludes with the following: "In my childhood hell fire was preached . . . I was bred in fear, and self-destruction resulted."

The great Italian physiologist, Mosso, agrees with the dicta of the greatest thinkers on the subject of child education, from Plato and Aristotle to our own times. "Every ugly thing," says Mosso, "told to the child, every shock, every fright given him, will remain like minute splinters in the flesh, to torture him all his life long."

If we wish to have a strong, healthy, happy race of men, we should lay a good foundation in the education of early childhood. We should avoid all means of brutal, slavish training which cripple man's individuality, freedom, and happiness. We should not use violence and fear. We should be careful to remove from the children all that is brutal, ugly, vicious, and fearsome. We should surround our young with the graceful, the true, the beautiful, the good, the kind, the lovely, and the loving.

Permit me again to trespass upon your patience by citing the remarks on education made by the great Stagirite, the master of human thought:

"Education of man should develop the best in man. Happiness is assumed to be the aim men strive after. Happiness, however, is virtuous activity. The active life is the best, both for society and the individual. That society is best in which every man is best, whoever he is, and can act for the best, and live happily (*Observe that the modern ideal of training for efficiency of production in quality and quantity is not favored by the great thinker*). Happiness is activity, and the actions of the wise and the just (*not activity for production of marketable goods*) are the realization of what is noble. Not that a life of action must necessarily have a relation to other men, as some persons think, nor are those ideas only to be regarded as practical which are pursued for the sake of practical results, but much more the thoughts and contemplation which are free, independent, and complete in themselves. To man the life according to intellect is the most pleasant,—intellect constituting the special nature of man. Such a life is the most happy. The wise man, the man who rules himself, is the happiest man:

"Happiness is self-rule. Man should be educated not for business, but for leisure. It is peculiarly disgraceful to have such a poor education as to manifest excellent qualities in work, but in the enjoyment of leisure to be no better than a slave. It is not the nature of

free men to be always seeking after the useful. Education and study should be with a view of the enjoyment of leisure. A state is not a community of living beings only (*not for the sake of business, occupation, and exchange of products*), but it is a community of equals, aiming at the best life possible. In a good harmonious education Nature, Habit, and Reason must be in harmony. Now in men Reason and Mind are the end to which nature strives, so that the education of the citizen should be with a view to that end, namely the cultivation of Reason and Mind."

## THE STAMMERING PROBLEM SOLVED *a not*

BY ERNEST TOMPKINS, M. E.

**T**HAT THE article by the Blantons entitled "What is the Problem of Stuttering" in the February, 1919, Journal of Abnormal Psychology leaves something to be desired, may be seen from the summary, which reads, " . . . there is or may be postulated some hereditary or acquired weakness in the field of emotional adaptation plus some hereditary or acquired weakness of the adaptive functions of speech, presumably in the kinesthetic, auditory or visual centers." Instead of definiteness we have in this sentence, "may be," two "somes," "presumably," and then indecision as between the "kinesthetic, auditory or visual centers." Since the authors themselves, in the same article, make a strong and worthy plea for settlement of the stammering problem, they will surely welcome a settlement.

Some one will say, "How can there be a settlement when the field is so confused?" And the question would seem reasonable in face of the glaring contradictions which are constantly appearing in the articles on the subject. The answer will be that if there can be a settlement it must be by scientific procedure, and that necessitates the establishment of a tenable theory. After we have the theory established the rest is easy. Let us take an illustration from the field of astronomy in order to convince those who, from unsatisfactory experience with fallacious theories, are accustomed to doubt all theories. When Kepler summed up all the reliable observations of the paths of planets and satellites in the conception that their paths are ellipses, he formulated a theory so comprehensive that it is accepted as the truth: we no longer call it a theory. And when some observer announces something different, we are not disturbed in our belief, for we know that Kepler's conception crystallizes the myriads of reliable observations. The new observer may be perfectly honest, but there is something wrong with his observation.

Now is there a theory in the field of stammering as reliable as Kepler's theory in the field of astronomy. Yes, there is; but it is not generally recognized because it is opposed by the same prejudice which opposed the views of Kepler, Galilei and all the other intellectual pioneers. This theory has been detailed so many times during the last



five years that it would be burdensome to give even the numerous references. The article in the *Pedagogical Seminary* for June, 1916, gives a comprehensive idea of it. Since the many expositions of it in the medical and scientific press stand undisputed, and since it accounts for all the manifold and perplexing manifestations of the disorder, it must be accepted as a working theory, provided we are to be scientific, and that is the understanding. Let us satisfy any who would question our right to proceed. Suppose he says, "I hold to the thymus theory, or to the auditory-amnesia theory, or to the visual-asthenia theory." But none of those theories accounts for the acquisition of stammering by imitation or association, and the speech-interference theory does account for such acquisition and for all other manifestations of the disorder, so we must accept the speech-interference theory. And the same statement holds true for any other theory that has ever been propounded. So there is no choice but to proceed on the basis of the speech-interference theory.

What is the speech interference theory? It is that the stammerer impedes his speech by a misdirected, conscious effort impelled by his fright. Let the reader grasp this fact—for fact it is, and anyone can see it—that the stammerer makes his own difficulty. Of course he has the fright, or emotion, but that is the result of the humiliation caused by his impediment. How did it begin? Why, by a temporary speech-interruption, the long sought common causal factor that has upset every other theory in the field. Dr. Makuen died without knowing that common causal factor. In the origin by imitation the interruption is intentional, by association it is unintentionally imitative, by fright it is the paralysis of terror, by sickness it is weakness. Once the temporary interruption induces the misdirected conscious effort, then the unkindness of society makes the humiliation which builds up the incomprehensibly tenacious fear.

Now we have our theory, let us use it. Is stammering coincident with the beginning of speech? No. How can one interfere with his speech if he has none with which to interfere? He can not. Speech must be acquired—speech always is acquired—before stammering can begin, notwithstanding that determined contestant who altered some of his previously published histories in order to prove the contrary! (*Quarterly Journal of Speech Education*, October, 1918, p. 454).

Can stammering be inherited? No. If it was inherited, it would be dissipated during the fluent period of speech acquisition. For, just as impeded speech builds up the fear which continues the disorder,

so fluent speech builds up the confidence which dissipates the disorder. Of course there are the numerous "proofs" of inheritance, such as Rudolf Denhardt's, traced back so many generations that approximately 100% inheritance of stammering, or measles, could be proved; such as Makuen's, which on the face of it, by summation of the percentages of causes he gives, turns out a mathematical disproof; such as the innumerable surmises of inheritance from a few occurrences of the disorder in different generations of the same family; but what a pity it is, what a travesty it is, to present such reasoning as medical science. Excepting the political vagaries which are unsettling the world there can probably be no greater wrong to the race than to keep the healing art down to the level of mere speculation and even worse. There is no more persistent error in connection with stammering than this interminably repeated inheritance, which not only lacks foundation in observation—just as much as inheritance of measles does—but which is actually barred from existence by the very nature of the disorder.

Has the stammerer any typical characteristics other than his stammering? No. Provided he had speech to begin with, and provided the temporary interruption occurred, he would stammer, and by stammering he would increase his difficulty until he had small chance of recovery. He might be immoral, he might be neurotic, he might be a coward, he might have an enlarged thymus, he probably would have sex; but his having any or all of those things would not make him a stammerer, nor would his being a stammerer bring on him any of those things. Let those who would dispute, do so. Say, if you please that his stammering would make him a neurotic. Let us consider that statement on its merits. Society humiliates him because it finds his antics funny. The humiliation pains him, and he dreads the repetition of it. But is a dog a neurotic because bad boys tie tin cans to its tail whenever they catch it? If the boys desist from plaguing the dog it will behave normally; and if society would desist from humiliating the stammerer he would not only behave normally, but would begin to recover. Most of the girls do recover on account of the greater consideration shown them. Go to any of the stammering schools and see the light-heartedness of those pupils whose quickly acquired fluency has convinced them that they are free from their affliction. Do they act neurotic? Not by any means. They almost walk on air. The long and short of it is that the charges against the stammerer of innumerable deficiencies are as baseless as they are cruel. He has a complicated, self-intensifying habit of extreme tenacity after

it has run for a time. And he is kept in the habit by the cruelty of society and by commercialism and faulty observation, both of which latter combine to hide the habit nature of the disorder and to represent it as a disease.

What is the solution? Extirpate the disorder by forbidding childhood indulgence in the convulsive efforts. Is that anything new? No; it is comparatively common knowledge. Otherwise there would be twice as much stammering as there is. This monumental confusion of the subject—a feature harped on as loudly as on the need of really doing something to abate it—exists only in our learned discussions of the subject. Turn to Chamber's encyclopedia of fifty years ago and you may therein read a better discussion of stammering than can be found in any modern reference book or encyclopedia. The hands of the clock have been turned back, and the modern literature on the subject is more erroneous than it was two generations ago. You find in that discussion that stammering is classified as a habit and the word habit is underscored. Do you find that to-day? *Pas sur votre vie.* One more-or-less prominent authority who was disseminating a discussion of stammering which he himself pronounced the finest discussion in the English language, on having called to his attention the fact that he had frequently and inadvertently mentioned the disorder as a habit, withdrew this superior discussion and substituted for it another which held much more rigidly to the disease classification. But the biogenetic law, and Mendelism, and evolution met with the same reception; so we may conclude that not yet, nor even soon, but possibly within a couple of generations the stammerers will get the justice which has been denied them since the race became human.

## NOTES

### THE IOWA CHILD WELFARE RESEARCH STATION

#### THE STATE UNIVERSITY OF IOWA

#### IOWA CITY

The Iowa Child Welfare Research Station was established two years ago by the State Legislature as an integral part of the Graduate College of the State University for detailed and consecutive scientific investigations of problems in the field of the development of the normal child. The purpose and methods of the Station are those of *scientific research* with the laboratories, libraries and instructional courses of the University as part of its organization and equipment.

At present the Station is prepared to give training for the doctorate in Child Psychology and in the Nutrition of the Child with unusual opportunities for scholarly men and women with their degree who wish to continue advanced research under favorable and standardized conditions.

A group of research students are now at work and appointments are offered with stipends ranging from \$480.00 to \$1,500, as research assistants to exceptional men and women with scientific insight, abandon and preliminary training for research work. The research assistant devotes four hours per day to some phase of research in progress in the Station and in addition may carry a *schedule* of courses or devote himself himself to his own problem. No teaching is required.

### NATIONAL PHYSICAL EDUCATION SERVICE OF THE PLAYGROUND AND RECREATION ASSOCIATION OF AMERICA

To help establish in every school in America physical education for the health and bodily efficiency of the children is the purpose of the National Physical Education Service with its Headquarters in the Homer Building, Washington, D. C. Shocked by the revelation of the national tendency toward physical degeneration shown in the draft examinations and the surveys of school children, a National Committee appointed by the United States Bureau of Education has secured the establishment of this Service by the Playground and Recreation Association of America.

That the children in the country as well as the children in the cities need this fundamental sort of education is clearly indicated by the surveys showing physical deficiency as prevalent among the children of rural districts as it is also among the children of the crowded cities. The most effective mental and moral training will not go far toward the making of all-round American citizens unless

adequate provision is made for the health and bodily efficiency of the boys and girls.

The thirteen states which have more or less effective laws requiring physical education in all the schools are as follows:—California, Delaware, Illinois, Maine, Maryland, Michigan, Nevada, New Jersey, New York, Oregon, Rhode Island, Utah, Washington. Bills H. R. 7 and S. 1017, now pending before Congress, plan to distribute to the states for the promotion of physical education twenty million dollars; this money to be distributed on a fifty-fifty basis, each state being required to appropriate an amount equal to the Federal funds received.

It is expected that all the State Legislatures meeting in 1920 will consider this important matter and it is recognized that the public press will be an important factor in making clear to the people the urgency of prompt and effective action to conserve and develop the physical fitness of the school children.

The National Physical Education Service stands ready to assist by furnishing information regarding the programs operating under existing laws in the various states and by making available every possible sort of helpful information.

#### NATIONAL RESEARCH COUNCIL

A special committee of the National Research Council, consisting of Dr. R. M. Yerkes, chairman, and Dr. M. E. Haggerty of the University of Minnesota, Dr. L. M. Terman of Stanford University, Dr. E. L. Thorndike of Teachers College, Columbia University, and Dr. G. M. Whipple of the University of Michigan, with financial support from the General Education Board, have formulated a plan for using the army mental tests in schools. Such intelligence tests have been used in schools for some time on individual children, but the new plan provides for handling them in groups, even whole class-rooms at a time. The committee selected about twenty tests for careful trial. This trial was made on five thousand children. As a result the committee has now been able to select from the tests two series which seem to be the most satisfactory and these will now be tried on several thousand more children in order that they may be further perfected before they are finally offered to the teachers of the country for general use.

This carefully worked out program for group tests will make it possible and practicable to make wholesale surveys of schools annually, or even semi-annually, so that grade classification and individual educational treatment can be adjusted with desirable frequency. It is expected that the methods will be ready to be published for general use early in 1920. The army tests on which these new group tests for children are based and which were used with striking success and advantage during the war, were originally devised by a group of psychologists working under the auspices of the National Research Council.

## REVIEWS

**EXPERIMENTS IN PSYCHICAL SCIENCE.** W. J. Crawford, D. Sc. Lecturer in Mechanical Engineering, Municipal Technical Institute, Belfast, and Queen's University, Belfast. E. P. Dutton & Co., New York, 1919. Pp. 201.

In experimental science one does not undertake to accept or deny the results which an investigator has arrived at unless either he has repeated the experiments reported and finds that his own observations confirm or contradict them, or on examination of the report discovers errors of method or fallacies in the conclusions arrived at from the reported data. In the latter alternative he says "not proven," in default of the former simply that he doesn't know.

In the instance of the experiments undertaken by the author of the book under review, the alleged psychical, or rather really physical phenomena are of such a peculiar nature, so contradictory of the accepted physical laws of nature and so dependent for their investigation upon obtaining suitable subjects who manifest them that it is not open to every one to attempt to repeat them. Indeed not only the phenomena themselves, but the conditions under which they were observed and the experiments conducted were in the most important respects peculiar to the subject or so called medium. It would be very difficult, if not impossible, to find other subjects manifesting identical phenomena, under identical conditions, and permitting similar methods of experimentation. It is therefore incumbent on Mr. Crawford, if he wishes his investigations to be recognized and the results of his experiments to be considered seriously, to submit his medium to the independent investigation of other capable observers trained in scientific methods. If for any reason, no matter what, this is impossible, then it is impossible to accept or confirm Mr. Crawford's work.

It will be said that many mediums exhibit similar "material" or physical phenomena, such as levitation of tables. They do, but not under similar conditions, and even if so, if it should turn out that other results and other conclusions were arrived at, then it could be still maintained that these conclusions were not applicable to the phenomena manifested by Mr. Crawford's medium and we should be no "for'a'der."

In lieu, then, of any opportunity to repeat Mr. Crawford's experiments we are obliged to fall back upon an analysis of his methods and processes of reasoning as given in his report.

It may be said at the outset that it is not surprising that this book has already made a strong impression on even most skeptical unbelievers. It is bound, I think, to attract wide attention and for a time at least to impress, so far as his experimental results are concerned, many interested in spiritistic and psychical matters. By those who have the "will to believe" the veridity of the author's observations and his conclusions will probably be accepted as final. By those

who have the "will to disbelieve" they will probably be rejected as fantasy run mad. At any rate the present, when all the world is agog over spiritualistic hypotheses and "super-normal" phenomena, is a most opportune time for the favorable reception of the book. The fact that Mr. Crawford is a mechanical engineer by profession and a lecturer in mechanical engineering in the Municipal Technical Institute and also in Queen's University, Belfast, attests his training in laboratory methods and his fitness for technical physical research. The experiments he reports are largely of this nature. The phenomena are physical, although linked up with spiritistic and psychical concepts and beliefs. The final explanation is physical although requiring concepts of a new form of "matter" and "force" unknown to science, and requiring the cooperation of mysterious "spiritistic" "invisible operators" who take part in the experiments and aid the experimenter and of "sitters" who contribute "psychical energy." In these days, when matter has disappeared as such under the progressive analyses of science and has been reduced to electrons, or foci of negative and positive electricity and fields of "energy," the receptive mind is prepared for new mysterious forces capable of turning topsy-turvy the world and the physical laws which govern it—as we know them.

The book is very well written and up to a certain point is a model of scientific exposition—that is of the data and experiments such as they are. It holds the attention throughout and tends to carry the reader along step by step with apparently satisfying proof, until the final "analysis of results" of the experiments on levitation without contact and conclusions, are reached. At this point, if the reader is of the type of mind of the reviewer, he asks himself "who is crazy? Somebody is crazy. Is it myself or somebody else?" I venture to say, from comments I have heard from other readers, that it takes some time, after reading, to regain one's mental equilibrium.

The greater part of the book deals with experiments on levitation without contact and to a consideration of these we shall be obliged to limit ourselves here.

These experiments deal with phenomena produced at a home-circle at Belfast in 1916-1917 and are a continuation of previous experiments already published in an earlier volume, "The Reality of Psychic Phenomena." "The circle referred to as the Goligher Circle consists of Miss Kathleen Goligher (the medium), her three sisters, brother, father, and father-in-law." Besides "spirit" raps, the chief phenomena consist of levitation and other movements and resistances of a small table thus described:

"The little table is standing on the floor within the circle formed by the sitters and is not in contact with any of them or with any portion of their clothing. Suddenly the table gives a lurch or moves slightly along the floor. After a while it may rise into the air on two legs (two legs being thus in the air and two on the floor). These movements—which are executed, as I have said, without physical contact with the medium

or the members of the circle—are the preliminary motions which usually take place just previous to the first levitation, i. e., before the table rises completely into the air of itself where it remains suspended for several minutes without visible support.

"I have seen hundreds of levitations under all conditions; standard levitations such as that mentioned above, abnormal levitations (such as where a stool rose four feet into the air and moved gently up and down for several minutes while we all examined it closely and while the medium was seated on a weighing machine) and freak levitations (such as where the table, being levitated, rocked in the air just like a small boat tossed about on a choppy sea). I have seen the table turn completely round in the air, and I have seen it levitated upside down and sideways. . . . although a heavy man sits upon the table it moves about the floor with great ease; or the table being levitated, a strong man pushing from the top cannot depress it to the floor; or the table moves to the side of the circle farthest from the medium and an experimenter is asked to lay hold of it and try to prevent its return to the centre, but he is totally unable to do so; or the table's weight can be temporarily so much increased that it cannot be lifted, or on the other hand so much reduced that it can be raised by an upward force of an ounce or two; or the table being turned upside down on the floor cannot be raised by a strong upward pull on the legs, being apparently fastened to the floor."

As just said the six members and the medium, clasping each others hands in chain order, sit in a circle about five feet in diameter. As the length of the top of one table given as a sample was 22 inches, it is easy to calculate that its distance from the "circle" of sitters was only about 19 inches. Its weight was  $12\frac{1}{4}$  lbs.

But the medium and her six relatives are not the only persons who take part and are essential factors in the behavior of the table. There is also a group of "invisible operators" who play an important role. Indeed we are asked to "remember that the members of the circle . . . are only passive instruments in the hands of" these mystic individuals—"whoever the latter may be." How these spirits—if they are spirits—operate I will mention later.

The room is dimly lighted (p. 153) by a red light. (How dimly we are not told, though it would seem to be a matter of some consequence considering that in some experiments accurate observations are required).

Communication with the "invisible operators" who help carry on the experiments is held by "spirit" raps. These of themselves are not insignificant.

"Their magnitude varies in intensity from the slightest audible ticks to blows which might well be produced by a sledge-hammer, the latter really being awe-inspiring and easily heard two stories below and even outside the house. The loud blows perceptible shake the floor and chairs."



By such raps these operators convey considerable information regarding the mechanisms by which the phenomena are produced—believe it or not as you please.

At this point it is right to state that the author in the previous volume above mentioned has dealt with the reality of these psychic phenomena and has satisfied himself not only of their veridity, but of the actuality of his friends the “invisible operators.” He therefore in the present volume quite logically assumes that this aspect of the problem has been proved and there is no longer need of eliminating or testing for conscious or unconscious fraud on the part of the medium or the six sitters, or of the invisible operators. It is only fair to bear this conviction in mind in reading his fascinating exposition.

Now what is the author's hypothesis regarding the mechanism by which the levitation is accomplished? By the invisible operators boldly grasping the table and manipulating it, like an invisible juggler? Not at all. Nothing so commonplace as that. He conceives of a “psychic” rod, sometimes several rods, projected from the body of the medium—sometimes (apparently) from the stomach, sometimes from the ankles according to the exigencies of the phenomena. The operators testify to the existence of these rods and actually describe their size and shape. When, for instance, the table is levitated in the normal way the psychic rod projecting from the stomach acts as a cantilever, that is a rod which has a fixed end or support in the body of the medium and a free end which is applied to the table. The rod is rigid. It is a form of matter. It has weight. (Mr. Crawford has actually weighed it and found it may weigh as much as 50 lbs!) And yet it is impalpable and invisible. You can pass your hand through and across it and feel nothing. It is matter which is “driven out of the medium's body.” “The method by which it is expelled is a mystery” but, apparently, the operators extract it. Here, then, is a form of matter with which, as Mr. Crawford frankly states, science is unacquainted.

The rapping rods are somewhat different in form and size—at least so the invisible ones say. They too issue from and are fixed to the body, but are semi-flexible and considerably smaller than the cantilever, being about 2 inches in diameter. The invisibles, presumably grasping the rod, strike the floor or table with it, producing light little taps or ponderous sledge-hammer blows. Queer kind of matter this that is projected and so manipulated!

It is obvious that if a rigid bar were firmly fixed by one end in the medium's body and if a weight were applied to the other free end of the bar, the weight of the medium's body would be *increased* by the amount of the added weight.

If on the other hand, the rigid bar were bent upwards at approximately a right angle at about the middle or near the end, and at the bend it rested upon the floor, or upon a spring pressing upwards, the increased weight would be *taken* up by the resisting floor, or spring, and, in the latter case, the medium's body would *decrease* if the upward pressure of the spring were greater than that of the

added weight. Furthermore, if in the first case, that of a true cantilever, the added weight were of a certain magnitude, it would cause the medium to topple over forwards. In the second case no such effect would be produced.

Accordingly, to test the hypothesis, the medium was placed upon a weighing scale and it was found that in certain instances when light weights or pressures were applied to the table the medium's weight *increased*, in accordance with the cantilever theory; and, in certain cases when excessive weights were added the medium's weight *decreased*. (When the weight of the medium proportionately increased and the added weight reached a certain magnitude, the medium tended to topple over. When the medium's weight decreased no such disturbance of equilibrium occurred). All this was fully explained by the operators who said (after the idea had been naively suggested to them by Mr. Crawford, p. 34), that when light weights or pressures were applied to the table they used the bar as a cantilever, but when the weights were excessive they allowed the bar to rest upon the floor.

Various other experiments were made, which would carry us too far to go into, to test the cantilever theory. The results were found to accord with the principles of mechanics. All or much, happened *as if* the cantilever and rod hypotheses were true, and, it may be added, as if the statements of the "invisible operators" were true. The provisional hypotheses are therefore believed to have been proved.

The way in which the operators made use of the bar is not clear. They seem to be able to handle the psychic cantilever or bar as they please, place it where they like, and, apparently, I judge, change its shape, although this is not definitely stated, change the place of exit from the body, and project two bars or more. But it is the sitters who supply the "psychic energy," though it is not evident what this does, or who or what does what. The medium simply supplies the psychic substance or bar, which is extracted from her body. Who manipulates the bar after it is projected, also, is not clear. One is justified in assuming either that the invisible operators handle the bar (as they do the rapping-bar) and with it make the table perform these antics; or else that the sitters, by means of their psychic energy, act upon the bar and do the same. It is not clear why the invisible operators, if they can do this, should make use of such a complicated mechanism and not "go to it" and raise the table themselves. If they can handle the bar, why cannot they handle the table? Perhaps it will be said that they cannot influence ordinary matter like the table but can only do it through the intermediary of this new psychic substance. But almost all "invisibles" who do materializations claim they can. There is no record of questions put to the operators in regard to this point.

When we come to examine the actual data derived from the experiments we find them really very meagre. We have certain alterations in the weight of the medium and certain topplings over and other movements of her body, and we have certain evidences of pressure applied to the floor and in other experiments

certain resistances of the medium to pressure. This is about all. The cantilever and "strutt" hypotheses (the latter conceiving of a bent bar resting on and gripping the floor at the angle) are based for their proof on these data, and little more.

In all these experiences the experimenter is the sole responsible recorder. A very serious weakness therefore results from the fact that there were no other control experts to check up the observations of the experimenter, both in reading the scales in the dim red light and in observing the positions and movements of the medium and sitters. In scientific observations, to eliminate the errors of the personal equation, sometimes several independent observers are employed. Surely, in recording such extraordinary phenomena as are here reported, it is not asking too much that control observers should be employed.

As to the reasoning process by which the conclusions are reached, it all happens *as if* the hypotheses were true. Therefore they are proved. A skeptical critic may answer that all happens, also, as if other hypotheses were true: for example, as if all were due to unconscious fraud (many curious things, to say the least were noted, e. g., when a screen was placed between the table and the medium, or when the latter's back was turned to the table nothing happened!); or as if the data were obtained through errors of observation; or, if you believe in the "invisible operators," as Mr. Crawford does, as if all the phenomena, including the variations in the weighing scales, were produced by them by just ordinary lifting and pushing the table and medium with their hands, without taking matter from a poor medium's body.

The author's hypothesis, also, surely fails to account for much and cannot be reconciled with what is scientifically known as matter, or force, or electricity, or energy. It does not explain how practically anything is done and assumes the actuality of invisible persons or co-experimenters, which is going it strong. I am not concerned with the veridity of the levitation and other phenomena, but only with the author's extravagant hypothesis to explain those assumed to be true. I do not wish to be understood as offering anyone of these interpretations, but only that the data are too meager and too insufficiently attested to warrant so extravagant an hypothesis as has been advanced. Unfortunately Mr. Crawford's exposition of his experiments is marred by an intense "will to believe," which crops up all through the book. With so dominating a will it is to be feared that control observers are essential for acceptance of even the observations.

I have already said that Mr. Crawford assumes the veridity of the phenomena and therefore the lack of need of precaution against unconscious fraud. From his point of view he is probably justified in his method of experimenting. But it cannot be expected that this assumption will be accepted by an outsider as valid. Every one admits that even when bona fide phenomena are produced by a given medium, on certain occasions fraudulent phenomena of the same kind will be manifested. Therefore, in light of this universal experience, the scientific experi-

menter must insist that in every experiment the possibility of fraud shall be guarded against and eliminated.

The reviewer has entered into this lengthy and serious analysis and discussion of the more important experiments and conclusions because of Mr. Crawford's official position as a mechanical engineer and because of the earnest and systematic laboratory methods employed. If the work carried out by him had been reported by a less well trained experimenter we should have passed the book by with a brief notice.

MORTON PRINCE.

MODERN PSYCHICAL PHENOMENA, RECENT RESEARCHES AND SPECULATIONS. Hereward Carrington. New York, Dodd, Mead and Co., 1919. Pp. xi, 331. Price \$2.50.

In this book Mr. Carrington gives us, not so much the results of his own extensive adventurings in the occult, as a survey of the field of the psychical in general. He does include one curious and interesting paper describing personal experiments in the physiology of crystal vision. And in certain other papers he presents his views on such diverse subjects as the nature and destiny of personality, the problem of evil, psychic healing, and the psychology of "Alice in Wonderland." But his chief purpose evidently is to impress upon his readers the magnitude and complexity of the area attacked by investigators of the seemingly supernatural since the founding of the Society for Psychical Research. Our old friend the poltergeist is missing from his pages, he omits discussion of dowsing, and, perhaps because he has dealt with it abundantly in previous volumes, he makes little mention of automatism. Also he says nothing of the latest type of ghost, the panic-creating elemental. Yet his survey is complete enough. Any who wish an up-to-date handbook of the marvelous cannot do better than procure Mr. Carrington's present work.

In detail, and often in the words of the observers, he describes such eerie beings and uncanny occurrences as invisible ghosts that let themselves be photographed, the photographing of thoughts and even dreams, the production of astral bodies, ghosts that creep into sealed scientific instruments to set them in motion, horses that spell and calculate, and evil spirits that attack the neurotic to produce dissociation and insanity. Devotees of spiritism will here have a rare treat, particularly as the phenomena described are presented by one a little more than inclined to accept their supernatural origin. "A number of striking experiments seem to indicate, in the clearest manner possible, that, in addition to our physical body, we possess another body of the same shape, composed of a sort of etheric or semi-fluidic substance." "Whatever the interpretation of the facts, the conclusion to be drawn from this mass of evidence is that genuine supernatural photographs have been taken, and that thought-forms have apparently been obtained, as well as so-called 'spirit photographs.'" "There is much

actual evidence that, in some cases at least, genuine 'obsession' of the spiritualist's variety is a fact."

Of course, to statements such as these, as to the narratives of astral action, spirit photography, and so forth, the trained worker in psychology normal or abnormal will react very differently from the spiritistic enthusiast. "Rubbish," "nonsense," and "preposterous," are words that may surge spontaneously up in his mind. He may reflect, too, on the ease with which judgment is led astray under the influence of "the will to believe." But Mr. Carrington can retort—as indeed he does retort—that there is such a thing as a will to disbelieve. In the words of the lamented William James, "we all live on an inclined plane of credulity, and let him whose plane tips neither in one direction nor the other be the one to cast the first stone." The fact of the matter is that, altogether apart from the central problem of spirit survival, it may very well be that even the most bizarre of the phenomena described by Mr. Carrington may throw new and practically important light on mental processes and powers.

Certainly psychology already owes much to psychical research—though perhaps not so much as Mr. Carrington would insist—for its present understanding of the subconscious and its present ability to explore subconscious mental states for medical and other purposes. (Take, for example, the use of the crystal for the study of hystericals, first applied by Janet, who got it from the psychical delver Myers, who got it from his co-worker in the psychical, Miss Goodrich-Freer.) And it is not reasonable to suppose that larger knowledge does not remain to be gained. The astonishing discoveries of the past few years go to justify the opposite supposition that we are only now beginning really to understand mental mechanisms and capabilities. Conceivably, then, the strange happenings of which Mr. Carrington writes afford means of approach to larger knowledge. Only investigation and experiment can determine this, and psychology may well join hands with psychical research in a systematic probing. The seeming impossibility of the alleged facts should be no sufficient bar to inquiry. There was a time when meteors were accounted merely alleged facts and absolute impossibilities. So far as that goes, there still are sundry educated folk who question the actuality of the subconscious.

In other words, Mr. Carrington's curious contribution to the literature of psychical research—a contribution written with felicity as with facility—should not be dismissed as a bringing together of imaginings and incredibilities. It is not a mocking of the intelligence but a challenge to the good faith of science. Shoulder shrugging will get us nowhere, never has gotten us anywhere. And the present writer for one hopes that science will earnestly apply its resources to ascertain the true significance of that at which many men now exclaim in wonder, while many contemptuously ignore or sarcastically deride.

H. ADDINGTON BRUCE.

**PSYCHOLOGY FROM THE STANDPOINT OF A BEHAVIORIST.** By John B. Watson, Professor of Psychology, The Johns Hopkins University. Philadelphia and London, J. B. Lippincott Company, 1919. Pp. xiii, 429; figs. 66. Price—.

This volume is an interesting and valuable treatise on social or applied physiology, and as such serves to be taken weightily in all but its name. It is no more psychology than a knowledge of the construction of tracks, draws, locomotives, and car trucks and their action is the science of railroading ample to solve the present important railways problem; no more psychology than a description of the apparatus and its action in Harvard's observatories is astronomy. "The science of physiology deals with part reactions \* \* \* whereas psychology deals with the adjustments of the organism as a whole" says Professor Watson (p. 193), but fortunately the world-meanings of important concepts are not so easily nullified and changed even by the recognized pioneer of behaviorism in the Johns Hopkins chair. One might think we should be grateful (although somehow we are not *very* grateful) that, as the author says in his preface, he has "retained such terms as thinking and memory," although "carefully redefined"; and he seems almost to apologise for retaining "attention" plainly one of the most somatic of psychologic terms. And when Doctor Watson maintains that it is neither, as Titchener said, a revolt in psychology nor, as Miss Washburn terms it, a revival of objectivism, we are inclined to agree with him, feeling strongly that it is only an attempt to embezzle a perfectly definite and respectable science known as physiology, scratch off some of its privileges of alluring paint and polish and to sell it to the unsuspecting as psychology—and certainly, despite Old H. C. L., at a considerable advance in the 1914 price. As an ex-physiologist the present reviewer congratulates the author on his splendid effort to show the physiologists the road to a physiology well worth their thought (pace tua!) and their time—"the continuous adjustment of internal relations to external relations" in the material range.

The contents of the book, as indicated by the eleven chapter-headings, are as follows: "Problems and scope of psychology. Psychological methods. The receptors and their stimuli. Neuro-physiological basis of action. The organs of response: muscles and glands. Hereditary modes of response: emotions. Hereditary modes of response: instincts. The genesis and retention of explicit bodily habits. The genesis and retention of explicit and implicit language habits. The organism at work. Personality and its disturbance."

This pioneer writer of modern materialism is thus seen to have discussed in the present volume a number of topics, and discussed them well, that are as meat and drink to a progressive psychology, properly so called. Chapters III, IV, and V consist of the familiar material, in cut and in letter-press, to be found in many places, psychologic as well as physiologic. But chapters VI and VII, (emotions and instincts respectively) have a new atmosphere about them, mostly because of their new research material of the genetic kind. Watson's definition of emotion shows the cool ignoring of mental processes wholly characteristic of

the book. "An emotion is an hereditary 'pattern-reaction' involving profound changes of the bodily mechanism as a whole, but particularly of the visceral and glandular systems." A scientific plan that could thus deliberately ignore the affect of emotions could with seemingly good conscience put on the screen a "movie" of the Fifth Symphony as played by a large orchestra on a brightly lighted stage, or of the lovely personality of a happy three-year-old; he might even expect to show us, did we sit in front, his own behavior as he wrote this book, expecting us to imagine all the rest! And yet the book itself belies any such implication of physiology, for it contains evidences of both thought and feeling, and of well-planned work.

As some might expect, the chapter on instinct is all that might be asked. It is a fundamental treatment of this topic. He thinks (pace!) that most of the asserted instincts are really consolidations of instinct and of habit—an easily-accepted opinion.

Chapter IX, on language-habits, is perhaps the best discussion of the body-side of conceptualization recently published. The suggestions for language-research in the future are well worth repeating, especially considering that the physiology of thought so far has had much less than its useful share of study. Watson says that the following points would be of special interest to psychologists: The acquisition of language in blind deaf mutes; the symbolic and folk lore side of our own and of other languages; stuttering, etc.; the effect of central lesions on language-mechanisms; the speech of psychopathic individuals, maniacs, paretics, paranoiacs for examples, slang and profanity in relation to emotion; and the language-system in dreaming by day and by night.

Chapter X, giving us much interesting matter, some of it new, on the organism at work, discusses fatigue, the work-curves, drug-effects, climatic relations, sexual differentiation, habit-acquisition factors, the conditions of learning, and so forth.

The eleventh chapter sets forth the behavioristic notion of personality—the reaction-mass made up chiefly of habit-systems, instincts, and emotions. Watson pays his skeptical respects to various familiar ways of judging personality—voice, attitudes, gesture, gait, phrenology, portraits, biological, characteristics, handwriting (Baldo, Binet, Crépieux-Jamin, Downey, Hall and Montgomery). He is inclined to believe that even the disease of a personality may arise from habit-distortion, (beyond the reach of compensatory factors) starting often in infancy as indulgence by care-takers.

The illustrations are adequate and some of them original. The book is written in a clear style and is well printed and bound. The index is adequate, but a table of contents would add to the usefulness of the volume.

As a text-book for some college course requiring in addition a text-book of real psychology, the work has a place, as it has interest abundant for the physiologist and the neurologist. To employ it in lieu of a treatise on the mental process, however, (were any institution so rash) would be to deprive the student

of part of his birthright, for it ignores the only part of the personality in which the average individual has much interest, namely, himself as a sentient being.

GEORGE VAN NESS DEARBORN.

DIAGNOSTIC SYMPTOMS OF NERVOUS DISEASES. By Edward Livingston Hunt, M. D., Assistant Professor of Clinical Neurology, College of Physicians and Surgeons, New York, etc., etc. Philadelphia and London, W. B. Saunders Company, Second Edition, revised, 1917. Pp. 292; figs., 64.

"My students at Columbia," starts the preface, "have asked me for several years to name a book in which they could find the salient points and leading symptoms of the principal nervous disease without the laborious search involved in consulting the larger text books. This book, written to supply such a demand, is intended for the student, the intern, and general practitioner, both as a reference and as an aid to diagnosis." With all due credit to the theoretic pedagogues who would make of all men forthwith profoundly learned *savants*, the present reviewer believes that there is a proper important use for such books, just as there is for medical quiz compends: they serve to refresh and to systematize conceptually many a busy man's knowledge of a topic, or even of a subject, which otherwise would never be either systematized or refreshed. Such books seem not only expedient but pedagogically sanctioned.

Few of them are as good as Livingston Hunt's, for he knows how to teach, as many Medical Corps men who had the courses conducted at the Neurological Institute, at the P. and S., and all about town, in the summer of 1918 could gladly testify. His clinics on the Islands were a delight.

The wide range and usefulness of the volume are indicated sufficiently by the seventeen chapter-titles, which are as follows: "The examination of a nervous case" (including the "Outlines for Clinical Examination," copyrighted, curiously enough, by the Department of Neurology, Columbia University). Deformities, Paralysis, Tremors, Trophic disorders, Spinal localization, Gaits, Ataxia, Convulsions, Sensation, Reflexes, Vertigo, the Eye, Disturbance of speech, Aphasia, Cerebro-spinal fluid, Electric reactions, and the Index.

As an illustration of the author's mode of treatment of most of these topics we may cite the gist of his valuable chapter on gaits. As he says, "not only is the gait a leading symptom of diseases of the spinal cord, but it also occurs with affections of the brain and even functional conditions. The student will find that he is amply repaid for the time he devotes to this subject." (And what the "student" in the narrowest sense finds valuable the usually older student of neuropsychiatry is certain to find of use whether in his self-sufficiency he thinks so or not; the wise man of course, is a student ever.) Our author describes ten gaits besides the normal: the ataxic, the hemiplegic, the steppage, the spastic, the clumsy, the cerebellar, festination, the staggering, the gait of hysteric conditions, and that of arteriorclerosis. It is poor objection to such an assorting to say that they merge and combine indefinitely into each other,—for so do



most scientific classes; yet science must have concepts; *veritatis simplex oratio est non*. Twenty-two pages are devoted to gaits, each of the latter being described and the discussion made immediately of use in many cases by a list of the chief diseases showing it. For the medical student and the less experienced practitioner these are of great diagnostic use.

This book provides much of the skeleton on which much neurologic diagnosis may be vitalized. To many a man who thinks himself far beyond or even "above" it, it would be of far more value than the most expensive set of textbooks in print; and its own price is small. The illustrations, nearly all of which are original, are excellent both graphically and educationally. Professor Livingston Hunt's little book should be known even more widely than it is.

GEORGE VAN NESS DEARBORN.

Boston City Hospital.

RELIGION AND SEX. STUDIES IN THE PATHOLOGY OF RELIGIOUS DEVELOPMENT. By Chapman Cohen. London, T. N. Foulis, 1919. 287 pp. Price 6s.

Evidently this book was largely a reaction to: James' "Varieties of Religious Experiences," which is characterized as a "remarkable piece of religious yellow journalism \* \* \* a glorified revival meeting in an expensive volume."

The author modestly affirms that his book "does not claim to be more than an outline of the subject, a sketch-map of a territory that others may fill in more completely." He does not write as a pathologist nor as a psychologist. On the contrary he assumes the role of a historian of pathologic religious symptoms. These are not treated from the viewpoint of case-studies of individual humans, but from groups as these are organized into larger social movements. From the professional point of view it is not a controversial book, for it deals almost entirely with conditions that are admittedly pathological. The book is almost void of the discomforting discussion of the more normal and borderland religious manifestations. The author is content to prove that religious institutions and thought, and religious valuations, have been and are largely dominated by these pathologic states which he sets forth and which modern thought generally separates from normal religion.

It will be comforting to many to be assured at the outset that the object of his inquiry excludes the wider and perhaps more difficult field of the possible erotogenetic interpretation of all religions. Still others will be glad to be reassured that this volume gives no hint of any acquaintance with psychoanalysis. Again, while disclaiming any investigation of eroticism in the philogenetics of religion the author makes investigation unnecessary by the dogmatic assurance that: "Neither sexuality, no matter how powerful nor how diseased, no matter how pronounced, can account for the religious idea. That has an entirely separate and independent origin." Being entirely innocent of any Freudian taint the author can add: "This should be plain to any one who has but

a merely casual acquaintance with the history of religion." These facts also tend to recommend the book to many timid readers.

In such spirit we get a hurried review of anthropologic literature and some impressionistic sweep over phallic worship. But the main emphasis is placed upon the erotisms and pathology of heretical sects, monastic institutions, asceticism, the crusades and witchcraft, with a lesser emphasis than usual upon the erotism manifested in the lives of the "saints."

If Mr. Cohen is a determinist it is with "limited liability" for he obviously is very moralistic, but irreligiously moralistic. This is shown when he holds Christian ideas responsible for the evils associated with Christianity, rather than to charge them up to the underlying impulses which made those credal intellectualizations acceptable and gave them their great potency. Those qualities of the book which I esteem its weakness will be its strength with that part of the public for whom the book was designed. It is moderate in tone, evinces a wide reading, is free from such technical discussions as are suggested by its sub-title and is relatively conservative in its conclusions. From this viewpoint it should be counted among the more efficient items of anti-Christian literature.

The author is a Freethought propagandist who is widely known in Great Britain. From that viewpoint this book marks a departure from the former literature coming from the same general source. Hitherto the attacks upon Christianity have dealt with the accuracy of its teachings, the historicity of its founder and the ethical value of its moral creeds. In terms of pathology, this book attempts to explain the potency of Christianity, independently of its verity or divinity. More of that type of discussion is needed because it is always more illuminating.

THEODORE SCHROEDER.



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## ORIGINAL ARTICLES

### A SUBCONSCIOUS PHENOMENON

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**I**N HIS essay on Dreams, Henri Bergson makes the statement that the great discoveries of the last century were in the physical order, and that those of the twentieth century will probably be in the realm of the subconscious. Studies made in this field during the decade just past support the belief that it promises to reveal facts that will be, at least, as significant as those that await our attention in the physical world. And if, as I believe, there are many signs and indications that we are approaching a great world-wide humanistic movement, this growing insight into the tendencies and forms of human nature that lie below the level of consciousness will occupy a large space in that vital psychology which is yet to be written. We are beginning to see that beyond the borders of consciousness there is a vast hinterland in the depths of which are to be found forces and influences that are indispensable if the narrow strip that is exposed to consciousness is made intelligible. Into it we have gone far enough to know that it contains the springs of creative activity, and also pools of stagnant water; in it are the sources of power, and also the breeding places of disease and confusion. And we have gone far enough to have every reason to believe that whatever may be discovered in this obscure region will fall under the principles of science, even though they may conflict with some of its dogma.

The case described below is, indeed, only a modest contribution to the rapidly growing mass of data bearing upon the problem of the subconscious. Automatic writing is now common enough, and



this phenomenon is, in general, of the same character. It has, however, some novelty, and will be, I believe, of some value to students in this general field.

About eight years ago Miss Mazie Fitzroy of St. Louis, while attempting to draw the face of a nephew who had recently died, discovered that her hand and arm were moving without her control. Being curious, she permitted the drawing to proceed. The result was a face, but one that bore no resemblance to that of the nephew. Since that time a large collection of drawings have been made.

Miss Fitzroy is a woman of fifty years of age, one of five children, all living. She has never married. Her father died when she was twenty; her mother is living. On neither side has anything been found of significance. Miss Fitzroy is, and has been for years, rather delicate in health. She has never, however, had any serious illness, and aside from a gradual impairment of her hearing she has no organic trouble. As a child she was unusually fanciful and this psychological trait has continued through her adult life. Her imagination reaches a vividness that approaches hallucination, and the imagery is visual. From childhood she has been a constant reader, and much of her pleasure in reading, she says, is due to the rich imagery that flowers out in her consciousness. This spontaneity of imagery has, of course, a direct bearing upon the drawings, and has been studied with some care. In the form that it takes it indicates a tendency toward dissociation, a weakness in the mind's correlating function. Music, Miss Fitzroy is a trained musician, also produces this marked visual imagery. And upon three different occasions elaborate hallucinations have been experienced. These hallucinations appeared at wide intervals, and at times when there was some emotional strain. They, together with the unusual character of the imagination, show conclusively that dissociation lies near the surface.

Two additional facts, when coupled with those already mentioned; are not without significance. The subject is a woman of strong feeling, and also extremely reserved in the expression of those feelings. This natural reserve has provided a complete and systematic repression of her emotional life, and this constant inhibition has had, to my mind, much to do in producing a general condition that underlies the specific phenomenon under consideration; it is a factor without which the phenomenon would, in all probability, not have occurred. Further, this natural reserve has been intensified by the loss of hearing. At the age of twenty her hearing began to fail (a sis-

ter has also had the same experience), and this, as is not infrequently the case, has turned her life inward, making it more subjective and increasing its natural insulation. A double repression has, then, thus been built up, and back of it there is a quick and strong current of feeling, one which has been fed by much reading and contact with art. For some time music was an outlet, but with the loss of hearing it was discontinued.

So much for a general statement of the case. It gives a significant background. With the aid of hypnosis a more minute analysis could have been, no doubt, obtained, but such means were not agreeable to the subject.

A word now regarding the drawings. Many of them have, in the judgment of professional critics, considerable artistic merit. They generally require from six to ten minutes. Occasionally nothing is drawn. Generally, however, the drawing starts immediately. What the drawing will be is, Miss Fitzroy asserts, unknown to her. And that this is a statement of fact I have not the slightest doubt. An examination of the arm during the drawing shows that a degree of anesthesia exists, and if the drawing is prolonged a pronounced numbness sets in. This fact confirms the automatic character of the performance. Upon one occasion, when attempting to draw blindfolded, the numbness spread over the whole organism. It should be added that Miss Fitzroy is perfectly innocent of any theory or explanation of what takes place. At no point does one uncover motives for imposture, and as one gets a more intimate acquaintance with the whole situation the question of genuineness is put aside. When drawing, the subject goes into no trance. Aside from the modifications already noted nothing abnormal is observable. It is more than probable, however, that in taking the drawing posture some degree of abstraction is produced. Continuous and absorbed conversation may be carried on without any apparent influence on the movement of the hand. The technique used is full of all kinds of caprice. Many of the earlier drawings were signed with initials. These were not written, as would ordinarily be done, but the space forming the letters was left when the dark background was filled in. When the picture is finished the hand makes a wide flourish, and the pencil falls; a vague sense of release is also reported to be felt at its completion.

An interesting thing sometimes occurs during the drawing. If the pencil is worn on one side Miss Fitzroy describes it as turning in her hand. She says she has a keen sense of its being turned in





spite of every effort to the contrary. What takes place is, of course, that two sets of impulses are expressing themselves in her hand, the subconscious impulses turning the pencil against movements initiated by consciousness. The fact that only the resisting group of impulses is identified with consciousness would produce the feeling that a foreign force was operative. The experience described by Miss Fitzroy calls to mind the "water-witch," and the explanation of the one will also do for the other. And, in passing, I may say that it would be interesting to study adepts with the forked stick for other signs of dissociation, which, so far as I know, has not been done.

I have said that art critics find many of the drawings to possess real merit. There is a subtle shading of expression, a delicate sketching of character in most of them. The faces are distinctly not modern. In but few is there more than the head or bust. There seems to be no sexual preference. This does not, of course, exclude the possibility that one of the many casual factors that lie at the roots of the matter may have been of a sex character. What weight, if any, to give to this possibility the data so far secured affords no means of answering. Many of the faces drawn are those of children. These may appear either singly or in groups, and occasionally several faces may be found dimly sketched in the background.

None of the drawings, according to Miss Fitzroy, resemble in any way people she has known, and, as I have said, they seem to me decidedly not modern. However, as an art student for many years she was constantly exposed to impressions that could easily provide the various types of faces portrayed. The general source of the material is, thus, not far to seek. A careful comparative study of the faces with works of the earlier artists might determine the question of source more definitely, and should such a study reveal any striking or close resemblance this fact would have some psychological value. Just such an effort will shortly be made by a well-known St. Louis artist. This much seems certain, that it was in the early period of her life that these impressions were received. And, being at that time a student of art (in particular drawing), the atmosphere of the gallery and studio would produce a receptivity not elsewhere experienced, a sensitive condition which no where else existed. Then, too, the contact with the world of art and literature has always been for the subject more vital and free than has been her contact with the actual world of fact and its people, *and only where the mind is free is it receptive.*

Not far below the surface, it would seem, there exists, in dream-like fashion, a stratum of imagery that under certain conditions, that is, a formal abstraction produced by the posture of drawing, is enabled to find its way out in appropriate movements. The abstraction defocalizes the nervous system sufficiently to permit the dissociated complex the use of the arm and hand. The complex may have existed before the act of drawing, or it may have been engendered by or with the complete drawing process. Just which statement describes the facts will depend, it seems to me, upon how far dissociation has progressed, or to what degree the self has been disintegrated, and this cannot be determined from without. The data at hand leaves the question open as to whether the cleft is slight or profound.

The fact that the drawings have considerable merit is not surprising when it is remembered that Miss Fitzroy has had a somewhat extended training in art. Their psychological value is, of course, not affected by this information. That value consists in the fact that they are subconscious productions. For some time we have been raising the question as to just what the subconscious mind can accomplish. What degree of ideation or coordination of movements is it capable of? These drawings have their value in so far as they throw some light upon the answer to this question, a question that is pressing into the center of the field of all vital psychological discussion. Art, it has been assumed, is an expression of mind in one of its highest functions. It is at the extreme remove from the sporadic and the mechanical. Beauty, said Plato, is the most difficult thing in the world. It is the very embodiment of idea. And yet here we have subconscious processes very credibly performing this same feat.

If it were possible to put out an inexpensive edition of reproductions of these drawings it would provide excellent illustrative material for those interested in presenting the general subject of subconscious phenomena.

# A SYSTEM FOR EXPLAINING AFFECTIVE PHENOMENA

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## I

THE following is a brief outline of a general view of the psychophysiology of affective phenomena which I have developed in connection with my classes during a number of years. It presents, I believe, some really novel features, but its principal merit lies in the manner in which it combines not only a large number of facts but also many theories with which we are already familiar.<sup>1</sup>

## II

The data of modern introspective psychology permit us to define a variable, which we may call *affective intensity*, as an algebraic quantity positive magnitudes of which are to be identified with the degrees of pleasantness of conscious states, while negative magnitudes represent the degrees of unpleasantness of such states. A zero value stands for indifference. This quantitative conception is supposed to be capable of formulating any possible affective value in consciousness regardless of the nature of the consciousness in respects other than the affective.

Various hypotheses have been advanced as to the identity of the physiological factor which is correlated with affective intensity as above defined. The exact nature of any such hypotheses must depend upon the general theory of the physiological basis of consciousness as a whole which is accepted. The view which I shall adopt is the traditional one that the entire introspective experience of any individual depends upon the nerve processes taking place in a limited portion of his cerebral cortex. We know that the cerebral cortex is mainly composed of gray matter, the dominant functions of which

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<sup>1</sup>Among such theories should be mentioned in particular that of Max Meyer, which in mathematical form is very similar to the one which I outline in this paper. The difference between the two theories, however, appears to me of essential significance, since the consequences to be drawn from the statement here offered are very much broader than those of Meyer's theory, although they include the latter. I am uncertain to what extent I am indebted to Meyer's theory in the development of my present views.

undoubtedly lie in the so-called *synapses*. It would, therefore, seem pertinent to look for the physiological basis of affection in some synaptic process.

Many facts of nerve physiology indicate that the inherent characteristics of any nervous arc which determine its specific activity are located in its synapses. It is at synapses that specific nerve connections are established and the exact characteristics of the nerve conduction process are regulated. The most important conception relating to the properties of the synapse appears at the present time to be that of its *resistance* to the passage of a nerve current. Upon the magnitude of the synaptic resistance depends the ease with which a given afferent current passes over into any efferent path, and it is therefore probable that the specific nature of the motor reaction to a given sensory stimulus depends upon the exact distribution of synaptic resistances in the central nervous system.

For our present purposes it will be more convenient to speak of synaptic *conductance* than of the corresponding resistance, the conductance being the reciprocal of the resistance. The fundamental assumption of the theory which we have to consider in the present article may be expressed as follows: *The affective intensity of any individual consciousness is proportional to the average rate of change of conductance in the synapses the activities of which are responsible for that consciousness.* This postulate may be expressed mathematically. If  $c$  is the average conductance of the synapses and  $a$  is the affective intensity, then:

$$(1) \quad a = k \frac{dc}{dt},$$

$k$  being a constant, and  $\frac{dc}{dt}$  being the usual expression for the rate of change of  $c$  with respect to the time  $t$ .

It is perhaps necessary to point out that a rate of change, like affective intensity, is an *algebraic* variable, of such a character that a decreasing conductance will mean a negative rate and an increasing conductance a positive rate while absence of all change will yield a rate of zero. Accordingly, increasing conductance implies positive affective intensity or pleasantness, while decreasing conductance must involve negative affective intensity or unpleasantness. No change in conductance will entail zero affective intensity, or a state of indifference. It is clear that the absolute level of the conductance, whether high or low, does not enter into the relationship at all.

## III

In order to develop the implications of the hypothesis above advanced regarding the physiological basis of conscious affection it is necessary to know under what conditions the conductance of cortical synapses changes. It should be borne clearly in mind that, since we have supposed the introspective consciousness to depend upon the cortical process and directly upon this alone, the activity of other portions of the nervous system can influence consciousness only *indirectly*, through the medium of the cortex. However, it is probable that all cortical processes are dependent upon other nerve processes occurring outside of the cortex, so that it is to the relation between sub-cortical and cortical activities that we must next direct our attention. It is obvious that as regards affection the problem is that of the external causes of changes in the conductance of cortical synapses.

The most familiar condition under which an increase in the conductance of a synapse occurs is that of simple *exercise*. The mere passage of a nerve current through a synapse is commonly supposed to break down its resistance and thus to render it more conductive for subsequent similar currents. This process, however, follows a law of diminishing returns, a maximum conductance finally being reached which represents the physiological limit of the increase. This corresponds with the familiar "learning curve." In the human being nearly all learning is cortical and intimately related with consciousness, so that we should expect this condition of increase in synaptic conductance to be an important one to the theory of conscious affection.

The affection in question, in accordance with our fundamental assumption, would of course be positive or one of pleasantness. The pleasantness thus conditioned is to be identified with that of *novel experiences*. We know from everyday life that pleasantness which is attributable merely to novelty quickly wears off with repetition of the original stimulus, a fact which is in harmony with the asymptotic form of the learning curve and the demands of our theory. The importance of the principle of novelty as a source of pleasure in human life is undeniably very great, so that this development of our theory will probably be found to cover a wide range of affective phenomena, involving all departments of sensation and also processes of imagination, association, thought, etc.

The opening up of synapses by the law of exercise is due to the action of afferent nerve currents upon the cortex. A study of the

subject indicates, however, that not all afferent currents act upon the cortical synapses in the same manner. Some of these currents, instead of increasing cortical conductance, apparently decrease it, at least along certain lines of conduction. These afferent currents are the ones which arise in those sense organs which Sherrington calls *nociceptors*. The most important nociceptive system is the so-called pain sense, which is stimulated through the free nerve endings of the skin and viscera. Other nociceptive mechanisms are those of cold sensibility, gustatory bitterness and sourness, certain olfactory sensibilities, etc. A study of the facts indicates that the excitation of any of these afferent systems tends to block or to *inhibit* any nerve current which is passing through the cortex at the given time.

The simplest way in which to explain the blocking action of these currents is to suppose that the afferent systems which carry them are so connected with the cerebral cortex that their activity brings about a *decrease* in the conductance of the cortical synapses which are functioning at the moment. We may tentatively identify inhibition with a process of decrease, or negative rate of the change, of synaptic conductance. It should be clear in what manner this system of relationships explains the unpleasantness which is the normal result of stimulating the pain nerves or any of the other receptors referred to as nociceptive in character. When a pain nerve is excited the form of response which allowed such excitation to occur is cut off by the action of the pain system on the cortical synapses which control that response.<sup>2</sup> From the purely physiological point of view this is simply a protective mechanism. On the psychological side, however, it involves an unpleasant state of consciousness, which unpleasantness is referable to the decrease in the conductance of the cortical synapses caused by the excitation of a nociceptive system.

Corresponding to the nociceptors and their attached nervous mechanisms we find certain sensory systems which instead of inhibiting cortical activity especially *facilitate* it. These departments of sensation might be designated as *beneceptive*, since in general they involve the action of stimuli which are beneficial to the individual or the species. The most important of these systems is that of the sexual or erogenous sense. Other beneceptive mechanisms are those of gustatory "sweet" and "salt," the warmth sense and the olfactory responses to fragrant and aromatic substances. When these particu-

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<sup>2</sup>It should be recognized that the "response" in question may be a simple *posture*. Cortical inhibition does not imply motor inactivity but rather motor *writhing*.

lar afferent channels are stimulated, instead of blocking cortical activity by decreasing synaptic conductance, they apparently aid it by increasing such conductance. The psychophysical inferences to be drawn are obviously of the same sort as in the case of the nociceptive systems, any action of a beneceptive channel upon the cortex producing in consciousness a positive affection, or a state of pleasantness.

It is to be supposed that these general mechanisms of cortical inhibition and facilitation are laid down by heredity. Their biological function is to control the random, inventive, activity of the cerebrum, to interfere with lines of conduction through the cortex which threaten the welfare of the organism, and to reinforce types of conduction which further its welfare or the welfare of the species. The cortex being the organ of the process of "learning by experience" naturally has at the outset a high degree of flexibility in its activity. But its necessary initiative needs to be checked up in terms of the practical effects of "experience." This "checking up" mechanism is provided by the bene- and nociceptors.

This sort of influence, exerted by a beneceptive or nociceptive sense channel upon the cortex, may be called *retroflex action*, since it is a sort of back action upon the cortex. In a sense a retroflex action may be regarded as the inverse of a reflex action, since the initiative in the process is that of the cortex and the final effect also has the same locus. In this process the modes of conduction through the cortex are regulated by the *practical effects* of cortical initiative in any given environment. A retroflex circuit, if we may speak of such a thing, is not of course a complete nerve circuit, but involves the environment itself as an essential link.

#### IV

It is clear that any process of increase of synaptic conductance must leave the conductance at a higher level than it had before the process occurred. On the other hand, a process of decrease will establish a lowered conductance. Thus the processes of inhibition and facilitation, as we have interpreted them, must leave permanent records of their nature and degree in the cortical synapses.

This consideration has interesting implications with regard to the relation of affection to tendencies towards specific lines of action, and points to a definite form of *psychological hedonism*. At least three

different forms of this latter doctrine can be discriminated. Bentham's doctrine that "pleasure and pain are our sovereign masters" may mean either (1) that we follow the dictates of *present* affection, or (2) that we are controlled by *anticipated* affection, or (3) that our choices depend upon affection experienced in the *past*. The first two forms of the doctrine have been emphasized to the greatest extent in the history of the controversy, but have been proven inconsistent with the facts. Our theory, however, implies only the last form; it is past, not future nor even present "pleasure and pain" which control our will. This principle harmonizes with the facts.

The manner in which this conclusion is reached may be indicated as follows. We may suppose the cerebral cortex to present possible lines of connection between sensory and motor mechanisms such that any conceivable motor reaction might follow from any conceivable sensory stimulus. The line of connection which is actually operative must involve the selection of the path of greatest conductance through the net-work of possible cortical connections. If we assume that primitively all lines of conduction were of equal conductance, the dominance of any particular line over others must be attributed to changes in the conductance of this line relative to that of others during the life of the individual.

Any such changes, however, would be represented by affective experience on the part of the conscious individual. The conductance of any given synaptic system at any time would necessarily be represented as the sum of its original conductance and all increments of conductance, minus all decrements of conductance which it had suffered up to the given moment. This measure could be expressed mathematically as the "time integral" of the rate of change of conductance of the given system for the time span under consideration, as follows:

$$(2) \quad C = \int \left( \frac{dc}{dt} \right) dt + K$$

$C$  is the final conductance of the system,  $c$  is the conductance at any time as in equation (1) and  $K$  is the so-called constant of integration, which represents the initial conductance. It is obviously legitimate to substitute in equation (2) an expression for  $\frac{dc}{dt}$  derived from equation

(1) viz.  $\frac{dc}{dt}$  We then have:



(3)

$$C = \int \left( \frac{a}{k} \right) dt + K$$

The expression  $\int \left( \frac{a}{k} \right) dt$  or  $\int a dt$ , neglecting the constant, would be called technically the "time integral of the affective intensity." In more popular terms, it represents the *total amount of affection* experienced during the given period of time measured in terms of positive affection, amounts of negative affection being subtracted from the total positive amount. This conception of the time integral of affective intensity I regard as the scientific equivalent of the popular term "happiness."

It appears from the above reasoning that the total amount of affection experienced in connection with a specific line of response is proportional to the total increase of synaptic conductance for the form of response in question. If we consider the total life experience of the individual and assume that primitively all cortical connectabilities were equal it follows that the total amount of affection which has been associated with any given form of response must be recorded in the present cortex by the degree of dominance of that particular form of response with respect to others. In the case of competition between response tendencies that one will triumph which has the greatest total amount of affection associated with its development. This quantity, in the phraseology of Hans Driesch, constitutes the "historical basis of reacting." *Present* affection in the strictest sense can have no influence upon choice, since the present is a mathematical instant and therefore can develop no finite value of  $\int a dt$  but the passage of time enables the affective intensities of successive moments to establish impressions. Anticipated happiness is, of course, entirely without effect save as the anticipation which is present, or past, possesses affectivity of one sort or another.

It will be clear to anyone accustomed to quantitative thinking that although the above reasoning is stated in terms of positive affection it actually embraces all negative terms of the same sort. "Unhappiness" is simply negative happiness, and the total happiness value of any span of experience is necessarily the surplus of positive happiness over negative. Exactly similar considerations apply to increments of conductance, decrements—which are associated with unhappiness—being simply negative increments. The total increase of conductance during any given period must obviously be the surplus of the sum of all the increments over the sum of all the decrements. A given form of response may become dominant either because of incre-

ments in its own conductance, or, on the other hand, because of decrements in the conductances for all other possible forms of response.

## V

The practical significance of the retroflex mechanisms above described obviously is greatly enhanced by the permanency of the effects which they produce upon the cortex. Now, the empirical study of the processes which we have denoted by the term retroflex action indicates that the permanent record left in the cortex involves not only a *quantitative* modification of a given response tendency but also its *permanent association with the retroflex mechanism* which was concerned. For example, if a certain form of response is once inhibited because of the fact that it causes stimulation of the pain nerves, when the original stimulus to this reaction again appears it will re-arouse the retroflex process which was originally aroused only by pain stimulation. In terms of what is known in physiology as Pavlov's Law, the retroflex function of the pain sense has become *conditioned* by the stimulus in question. This stimulus has therefore been rendered capable of producing, by itself, decreases in cortical synaptic conductance. Similarly, a positive retroflex function involving facilitation of cortical activity can become conditioned through experience by specific stimuli with which it is not connected with by heredity.

Such associations of primitively neutral<sup>3</sup> stimuli, or forms of reception, with retroflex mechanisms correspond on the physiological side with what the Freudian psychology calls "complexes." Complexes always involve the association of some inhibitory or facilitory tendency with a primitively neutral "idea" or group of "ideas." This association is the result of some experience which so far as the individual is concerned may be regarded as accidental. On the psychological side, of course, a complex involving inhibitory tendencies must be unpleasant, while one which is linked with a facilitory tendency will be pleasant.

In accordance with the above interpretation, complexes may be founded not only upon sex—the basis most stressed in the Freudian theory—but upon any primitive retroflex tendency. Sexual tendencies are undeniably of great importance, but the pain mechanism is probably even broader in its significance. Gustatory, gastric pain (hun-

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<sup>3</sup>Such "neutral" stimuli usually belong to *exteroceptive* fields, such as vision, audition, or touch.

ger), olfactory, and temperature complexes are also possible. Complexes may be divided, according as their retroflex basis is one of inhibition or facilitation respectively, into the negative and the positive. Complexes can be based upon more than one primitive retroflex tendency at a time, and when a single stimulus becomes conditional simultaneously to both a positive and negative tendency a process of conflict results. If one tendency wins ascendancy over the other, the latter is "repressed." Many of the Freudian cases involve a repression, in this sense, of a sexual by a pain complex. In other instances pain complexes (fears or phobias) are repressed by positive complexes, such as that of the "ego" (*vide infra*).

It is clear when once a specific, originally neutral, stimulus becomes associated with a retroflex function that this stimulus can act to inhibit or to facilitate—as the case may be—any further form of cortically controlled response with which it may happen at any time to be concurrent. In other words, it can take the place of the primitive nociceptive or beneceptive stimulation in primary retroflex action. Such a process resting upon a conditioning of the fundamental retroflex functions through experience may be called *secondary retroflex action*.

It is obvious that this process of conditioning and reconditioning can go on *ad infinitum* and build up definite constellations of response tendencies in the cortex which have an extremely complicated historical basis. The vast majority of our adult processes of "learning by experience" and the development of new forms of behavior in general do not rest directly upon the stimulation of primitive nociceptive or beneceptive sense channels but rather upon an elaborately conditioned operation of the central functions of which these channels are the normal exciters. The early education of the child, particularly his so-called moral education, has as its real function the production of conditioned retroflex systems which can be employed by society in his later life to control his behavior. One of the most complicated products of this progressive pyramiding of retroflex functions is the so-called "ego complex," which dominates the behavior of practically all contemporary human beings. This complex is not based upon any single nociceptive or beneceptive channel but upon all of them combined in a certain manner with primitively neutral stimuli.

Complexes are usually regarded as abnormal or psychopathic affairs, but if we accept the theory above outlined all human tendencies to action must rest upon complexes in the broadest sense of the

term. We notice a complex only when it is of an unusual kind which incapacitates the individual to some extent for normal life. The majority of complexes, however, are absolutely essential instruments to the proper adjustment of the individual to his natural and social environments. They provide him with the motives which are necessary in order that he should survive individually and that his species should be propagated.

## VI

There is a great deal of discussion in current psychology with regard to the part played by *instincts* in the development of human behavior. All psychologists recognize clearly that truly instinctive action is found in certain lower animals, particularly among the invertebrates, but there is considerable question as to whether man possesses instincts in this sense, that is, whether he has any *complicated* forms of adaptive response which are inborn.

The theory above outlined suggests that what we call instincts or instinctive behavior in the human being may actually be complexes or forms of response developed by experience in connection with the retroflex functions. Some of the complexes which are produced by experience follow almost inevitably from the nature of the hereditary retroflex systems and the general characteristics of the human environment, so that these complexes must appear in every normal human individual. This relative invariability would cause them to be mistaken for instincts. It seems to me highly probable that practically all of the so-called instincts of the human being are actually general complexes of this sort.

The above expressed opinion must not be taken to imply a disbelief in the presence of any completely hereditary forms of response in the human animal. There is not the slightest doubt that a great many such forms of response exist, but practically all of them seem to be carried out through synapses in the spinal cord or other nerve centers lower than the cerebrum. None of these hereditary responses, moreover have a sufficient degree of complexity to warrant their classification as instincts, although many of them form *parts* of complicated responses which I conceive to be developed by experience but which are often regarded as instinctive. The cerebral cortex offers only one out of many alternative paths by which afferent nerve energies can pass over into efferent channels. We are certainly compelled to suppose that practically all of the nociceptive and beneceptive nerve

paths discharge not only in a specific way into the cortex but also into specific motor channels *via* synapses of the spinal cord, medulla, or mid-brain. These lower center connections are wholly hereditary and their motor expressions are necessarily implicated in any response system of which the retroflex mechanisms form a part. Thus pain stimulation, for example, normally brings about a general innervation of flexor muscles and of the sympathetic nervous system.

It is very doubtful whether any definite hereditary forms of response are mediated through connections in the cerebral cortex.<sup>4</sup> The cortex appears to be the organ of flexibility and adaptability in response, and is at its highest level of development in the human species, in which also it appears to dominate with great power all other nerve centers. No doubt the cortex has a definite anatomy which is determined by heredity, but the function of this anatomy appears to be to render possible the greatest variety of interconnections of afferent and efferent nerve paths, without determining which ones among these possible connections shall become effective. It is upon cortical processes alone that we conceive the human introspective consciousness directly to depend.

Shand, McDougall, and others have attempted to correlate *emotions* with instincts, claiming that for every instinct there is a corresponding emotion. Instinctive activities are often divided by such writers into primary and derived forms, which implies a corresponding division of the emotions. According to the present theory, the primary emotions would correspond to primitive unconditioned retroflex functions. All other emotions would be of the derived type. There is still considerable argument among psychologists as to the exact definition of an emotion, but, in spite of the James-Lange theory, affection appears still to be regarded as an essential constituent. Whether a given experience is called an emotion or not seems to depend upon its intensity, and in particular upon its affective intensity. My view would be that any experience accompanying a sufficiently powerful arousal of a retroflex function is an emotion. The majority of emotions in adult experiences depend upon a conditioned arousal of these functions, being associated with specific *complexes*, and are therefore to be classified as derived emotions.

It is a characteristic implication of the present theory that the essential bases of specific emotionalities lie in various afferent, rather

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<sup>4</sup>Exception may have to be made for certain oculo-motor adjustments.

than efferent systems. So-called instinctive behavior in man must be studied in relation to a subdivision of receptors rather than of effectors, if progress is to be made.

## VII

The above sketch is, of course, too brief to provide an adequate presentation of a theory as comprehensive as the one with which it deals. The sketch provides all the necessary materials, however, for any student of the subject to work out detailed developments of the theory, whether these involve an application to problems of normal or of abnormal psychology. I hope to follow out some of these details myself in further papers dealing with specific problems of the affective life.

## THE CONDITIONED REFLEX AND THE FREUDIAN WISH

BY GEORGE HUMPHREY

**P**ERHAPS the most serious ground for misgiving in the psychology of Freud is what seems the entirely anthropomorphical nature of the wish. The wishes appear out of the blue sky of the unconscious, they fight, they compromise, they subject each other to the indignity of suppression, they join hands, they agree to differ. They seem to behave not as the parts of one man but as an army of men, or rather not as an army but as many armies. The picture has of course the merit that it is graphic, and by contrast with the psychology of a generation back that is a welcome quality. But such anthropomorphic entities, however lucid the metaphor they present, are scientifically dangerous, and are usually found to be the product of incomplete thinking, and it is the purpose of this paper to show by means of the conception of the conditioned reflex that what are apparently entities may be reduced to a much simpler form.

Consider the genesis of the desire I feel for food every day at certain times. Once all that was necessary to satisfy this desire was food alone. It makes little difference to the hungry boy of six whether he eats his pudding on the floor or at the table, out of his nor over clean pocket or from a silver dish. But when he is forty years older he may have become an epicure. His dinner must now be punctual or his appetite is spoiled. The cloth must be clean, the lighting subdued, the service expertly deft, the table properly set with all the accessories of food well cooked and eaten in a seemly manner. There is a great difference between the eating of the little boy sitting on the kitchen floor and that of the epicure whose appetite is spoiled if he happens to have been given someone's else napkin. And yet a clean napkin is not part of the food. Why then must there be all these frillings to a meal in addition to a sufficient quantity of well cooked food? Because, to use a hard worked term in psychology, they have become associated with food. They have been present for years on previous occasions when the food and the cooking were good, simultaneity being, as Aristotle observed, the essential factor for association. Moreover they now serve as a stimulus for food and in place of it. When the bell has rung for dinner and the process is

gone through of sitting at the table with the lights duly shaded, the knives and forks and other accompaniments of food properly arranged and the napkin smoothed down in its right place, the mouth waters. The reaction to food has begun without the sight of food, by means of these other things that serve as conditioned stimuli for the food reaction. In other words, the wish for a meal consists of the hunger motive put into operation by the mechanism of the conditioned reflex, or rather of a number of conditioned reflexes.

Pavlov has shown that almost any stimulus occurring at the same time as the primary stimulus will thus condition the reaction of that stimulus, and in another connection that not only are the salivary glands excited but that in addition the gastric juices begin to flow. Thus the whole complex process of digestion is actually initiated by these stimuli which originally were incidental, and without meaning, and although in actual life instead of fairly simple secondary stimuli such as colored lights and musical notes we have a highly complicated system of extra stimuli, yet the principle is the same. The whole process which we call digestion is set on foot by the action of a number of stimuli originally extraneous, the wish to eat now becoming the wish to eat "like a Christian," that is, to eat with all the secondary stimuli. In the same way other wishes can be analysed into reflexes, and in general it may be stated that the wish, as Freud uses the term, is a course of action for which the organism is set (Holt) by means of a system of conditioned reflexes.

A system such as we have described requires, as we have seen, a very complex system of stimuli to set it off. Sometimes it happens that while some of the necessary stimuli are present others are missing. In this case some of the reflexes will remain unstimulated, and the system will be in part excited and will remain in part unexcited. The dinner gong may ring, the guests come in and take their places but the soup may not appear. Worse, the soup may appear but the dinner may not be able to start because someone is called away. It is then that the diners would say that they began to wish for their dinners. When a system is partially excited we have a wish in the non Freudian sense of the term. A strain is set up, and the whole system is thrown out of equilibrium. Nothing can now put things right but the proper stimuli, and after the delay even these may not be sufficient. The dinner may be entirely spoiled by a late arrival. The purest example seems to be the process to which Krasnogorski has given the name "loading and discharge." Here we have a stim-



ulus A and a stimulus B both of which are necessary to set off the reaction. The two stimuli are separated by a three minute interval. If now the stimulus A is given and is not followed by B, there is no apparent response. Yet something must have happened within the organism, for this apparently responseless stimulation is a necessary condition for stimulus B to be followed by the adequate reaction. There has been partial or inadequate stimulation. It is to be emphasized that in adopting the term "loading and discharge" nothing is implied as to the nature of the process; the physiological controversy hardly concerns us here.

Such partial excitation occurs in many of the pathological cases and is a fruitful cause of pathological conditions. For example, in the case cited by Doctor Kempf, where the daughter-in-law vomited at the sight of red fruit, the vomiting occurred not from the pure stimulus of the sight of red cherries but because the stimulus was part of a nexus of stimuli. The sight of red cherries brought partial excitation. Similarly in a case described by Healy where a boy was shown indecent pictures by a friend and began to imitate the bad habits of the latter, the potency of the photographs and the influence of the friend depend on the fact that a whole system of reflexes has been thrown out of equilibrium. The same thing happens in many advertisements and in all suggestive pictures, the art of which is to present such a stimulus as will set in a state of unrest a powerful system, thus exciting a wish in the non-technical sense. But not all cases of pathological seriousness are to be set down to this cause. For instance, Burnham gives an example of a girl who developed hysterical fright from a dog that jumped at her, first the place serving as a stimulus for the original reaction, then reminder of the place by teasing, then the presence of the persons who had teased her. Here, for the dog as stimulus is substituted the kennel, for the kennel the mention of the kennel, etc. There is complete excitation, one of the stimuli in this case, as sometimes happens, being sufficient. Indeed it is the completeness of the excitation that makes the case pathological. For the normal reaction would have been a partial excitation, bringing a state of mild tension. In a healthy organism this would have been endured and gradually eradicated by counter experiences, as the experiments of Pavlov and others have shown to occur in the unlearning of conditioned reflexes. Partial excitation of this relatively trivial type occurs every moment of our lives. A stress is always engendered, but whether or not the stress will cause a disturbance so important

as to be considered pathological depends on the nature and strength of the system involved and the robustness of the organism.

There is one type of pathological case, however, that is always caused by the mechanism we have described, and that is the case usually described under the name of conflict. Here there are said to be two opposing wishes which line up one against the other and fight a bitter battle until one is vanquished. Sometimes one is able to reduce the other to a state of relative impotence without however being able to destroy it altogether. Then there is victory without peace, the organism which is unfortunate enough to be the seat of the warfare being torn in two directions by the victorious trend on the one hand and the counter efforts of the defeated wish on the other. A doctrine as picturesque as this should immediately be reexamined.

Suppose I pass a baker's stall when I am hungry and see a well baked biscuit just to my hand. I am tempted to take it, but do not do so because of certain social inhibitions concerning other people's goods. Here we have the essentials of a conflict. There is the wish for food, which says take it. There is the commandment which says thou shalt not steal. Between the two, if I am hungry enough, results a struggle, according to the usual account, which tears the organism in two different directions and subjects it to very serious discomfort. But consider what has happened. The system of reflexes which constitutes the digestive process has been partially excited by the stimulus of the sight of the food. Full excitation can only be brought about by a succession of stimuli which would mean taking up the food, biting it, letting it remain in the stomach, etc. Inhibition has cut this chain of stimuli short. It has prevented the taking of the food into the mouth, although the first stimulus, the sight of the food, has been given. The pain which the man experiences comes from the fact that a system<sup>1</sup> of reflexes of enormous strength has been partially stimulated. That this is so, and that the pain does not come from the fact that there is an internal struggle, is neatly shown by the fact that the situation and the pain that go with it may be produced by the partial excitation alone without the struggle. In the *Odyssey*, Book XI, lines 582 to 592, is told the story of Tantalus "in grievous agony," who, it will be remembered, was put in a lake over which hung grapes, both the water and the fruit disappearing whenever the old man tried to get at them. Here is the pain without the conflict, and the

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<sup>1</sup>Or to be more precise, two systems. A "conflict" is generally due to double partial excitation.

general situation is so common that there has been invented the word tantalize to designate such partial excitation which is not caused by inhibition. If now the grapes had belonged to someone else and Tantalus had had qualms of conscience about eating them, there would have been a so called conflict, but the pain would have been caused not by the struggle but by the partially excited chain, or possibly chains, of reflexes. Further, the human being is so constituted that it likes to imagine that all hindrance comes from within in the form of inhibition. If Tantalus had been a little less hungry he would have said that the grapes were sour. The pain of what is called a conflict, then, is internal to one or both of the systems involved, not external to them both. It is not the fact that there is inhibition that causes the discomfort, but the fact that a powerful system has been partly but not adequately excited. There is no evidence that mere inhibition does psychical harm, any more than, according to Sherrington, it does physical harm.

Summing up: by simultaneous concurrence there are set up systems of interconnected conditioned reflexes, the reaction to the combined stimuli of which constitutes the Freudian wish. The constituent reflexes come to condition each other as well as the joint reaction, and so, when some are excited and others not, the whole mass is thrown into a condition of stress, the effect of which on the organism depends upon the nature and driving force of the system disturbed. Thus is born the wish as the ordinary man understands it, which is a mild form of conflict, the discomfort of which in the pathological cases as well as in the milder form is due to the partial excitation of a system of reflexes.

## TREMOR FOLLOWING EXPLOSIONS

BY TOM A. WILLIAMS, M. D.

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**T**HE diagnosis of the functional disturbance known as Tremor which so frequently follows proximity to explosion is one which presents several problems for solution. Is this Tremor of hysterical, emotional, organic or neuropathic origin? Can it be simulated? What treatment ought to be employed? and, how ought one to deal with Tremor-stricken soldiers?

Without supplying a decisive answer to any of these questions Henry Meige in the following history of a patient so afflicted gives several indications destined to facilitate the clinical analysis of this disturbance, and incidentally certain military judgments.

On the 13th January, 1915, Corporal S. and his men were occupying a trench when the bursting of a torpedo above him threw him violently against the wall without wounding him, although several of his comrades were killed. It is not certain that he lost consciousness; he remained felled to earth until an adjacent communication trench was sufficiently completed to admit of evacuation. He had begun to tremble a short while after the explosion. Back in the trench he still trembled. In spite of this he remained there for a fortnight trembling all the time. He lost appetite, became thin, and could no longer handle a rifle. He was not evacuated for a month. Then, as his condition did not improve, he was sent to various institutions, until the 13th April 15 found him in the Neurological Centre at Villiers-Cotterets where he remained for two months.

There he was examined by Guillain who supplied the following information. This man's complaint had been diagnosed as "Hysterical chorea." He trembled in every portion of his body. The patellar and achilles reflexes were active, those of the upper limbs were normal, and there was no disturbance of sensibility. There was neither tachycardia nor bradycardia—only a state of emotion so keen that it accentuated the tremor. This became particularly violent at the sound of cannon, or the bursting of bombs in the neighborhood. No improvement was recorded during his stay at Villaret-Cotterets. Lumbar puncture revealed a normal cerebro-spinal fluid without hypertension, non-hyperalbuminous, and devoid of cell. On the 19th

June 15, he entered the Salpetriere. A month later he was sent to a civilian hospital, where he stayed until the 24th September, from whence he went home on convalescent leave for a month. He returned to the Salpetriere on the 15th December, 1915. During the whole of this time, his condition had not altered in the least from what it became after the explosion which caused the mischief—a year previously. He trembled continuously.

This tremor, apart from any casual emotion, was visible in the four limbs, with a slight accentuation in the upper-right limb, and the lower left. It used to cease during sleep, although it continued in the recumbent position just as in that of sitting or standing. Toward evening it became more marked, and the patient only managed to get to sleep very late. The head trembled only slightly. There was a slight and irregular twitching of the eyelids and tongue which did not synchronise with the tremor of the limbs. There was no nystagmus. In order to lessen the trembling of the upper members, the patient used to hold his forearms at right angles to his arms, firmly against his sides. When the trembling of the lower limbs became very powerful, he used to get up and walk about. Any movement, such as seizing an object, carrying a spoon or glass to the mouth, used to exaggerate the disturbance. It then recalled the intentional tremor of the insular sclerosis in its most intensified form.

But the principal cause of the exacerbation was emotion. A sudden noise, a sharp command, the mention of a stay in the trenches would bring about a veritable motor crisis. The patient's body would jerk in the most marked manner, and his legs would tremble so as to almost cause loss of equilibrium; then this excessive agitation would gradually die down, although the original tremor would remain. The search for the reflexes was a difficult matter because the slightest percussion would cause the most violent jerkings. There were no disturbances of sensibility, and perspiration was easy and abundant. The pulse varied according to the degree of the tremor. In repose it would be 60, while a sudden rap on a table would bring it up to 120."

In order to find out how to deal with such a case, it is necessary to analyse successively the trembling proper and the paroxysms which occur on certain occasions.

These tremblings used to be classed as belonging to a classical type already nosologically recorded with the utmost precision, and it is true that these types are observed clinically, although the hybrid

or atypic forms are less numerous. The Parkinsonian type is one of the most characteristic because of the regularity and the synchronism of the oscillations in all the segments and especially their predominance in the extremities, particularly the fingers.

Certain Tremor-stricken soldiers present this type, and the observation of agitated paralyses dates further back than yesterday, several cases having been noticed at the Siege of Strasbourg in 1870. The etiological features of this present day tremor favour the idea that its symptoms are identical with those of Parkinson's disease. The latter syndrome is regarded to-day as the manifestation of an organic lesion. If the situation and nature of the lesion are still uncertain, yet their striking analogy to these pseudo-bulbar and lacunar disease admits of the possibility of lesions in the vicinity of the central gray nucleus.

It is perfectly admissible that the shock and concussion caused by violent explosion can produce more or less lasting disturbances in the same region of the encephalon, acting either directly upon the nervous centres and tracts, or indirectly by means of the vessels or ventricular liquid. This is why a Parkinsonian tremor following upon shell-burst points to the possibility of an organic lesion. The case just described, does not favour this idea, but examination of the cerebro-spinal fluid did not take place until three months after the accident. Nevertheless the symptoms of this case differ appreciably from those of Parkinsonian Tremor; there is neither regularity nor synchronism in the oscillations—the characteristic trembling of the fingers particularly being absent. Finally whilst the Parkinsonian illness is a progressive affection, where the Tremor gradually invades all of the members, in this case, as in the majority, the condition of the patient undergoes no change. The lesion, if lesion there be, remains as it was in the beginning.

This remark is important both as a prognostic and as a guide to military decisions. Moreover, it is evident that in the patient under discussion, the tremor is of the type known as "intentional." The disturbance is accentuated by any spontaneous movement, while it becomes excessive if, for example, the patient is asked to convey a half-full glass to his mouth, a fact which is no doubt explained by his fear of failing to accomplish the act safely. In this respect the Tremor can be compared to that occurring in multiple sclerosis, but there is no other clinical sign which bears out this resemblance. As far as the rest is concerned, Meig does not consider that the "in-

tentional" nature of the Tremor is a very safe guide to diagnosis. More often than not, it is a mere manifestation of the patient's inability to overcome his fear of failure of accomplishment. Thus, in such a case, the Tremor is nothing more or less than a reaction of emotional origin, which often plays an important part also in subjects with multiple sclerosis also in the majority of other Tremblers.

This exaggerated oscillation upon attempted movement is also found in the Tremor which accompanies organic affections. It is present in the disease of Freidreich, in lesions of the cerebellar apparatus (acute Tremor of Reginald Miller). In all cases of tremulous neurosis, hysterical Tremor and Tremor of Degenerates, etc.). This sign is well worthy of being noted, although too deep a significance must not be attached to it. The same is true of the frequency and extent of the oscillations; these vary according to the patient and the occasion which calls them forth. On the contrary, their regularity is more important and speaks in favour of an organic origin. It was noticed a long time ago that neuropathic tremblings, and notably those accompanying hysteria were essentially polymorphous. At this juncture, it is well to point out the abuse which is made of the term "Hysterical Tremor" to label Tremors the nature of which is unknown. It is very doubtful whether Tremor is one of the charactes of hysteria, although it is possible that in certain subjects it may have been evoked by suggestion. One thing is certain however, viz., that in the vast majority of cases Tremor resists any and all Psychotherapeutic tentatives. Even the best-directed will fails to overcome it; if ever a short respite is gained, it never lasts long enough to lead us to anticipate material modification. Such was the case of the soldier under observation; hysteria was not at the bottom of his trouble. "Let us limit our statements," says Meige, in concluding his remarks, to saying that this man's trouble was not a case of Parkinson's tremor, nor yet of cerebellar commotion, that he presented no sign of multiple sclerosis, nor of general paralysis, Grave's disease, nor of intoxication reputed to be tre-ogenic, saturnine, mercurial, ethylic, opotherapic, etc., and let us add that neither heredity nor congenital deficiency, nor, in view of his age, senility, played any part therein.

Thus, although the character of this Tremor resembles those considered as neuropathic manifestations commonly observed in traumatic neurosis; nevertheless, given its etiology, tenacity and immutability it is not impossible that it is the consequence of some material deterioration of the nervous system caused by a violent explosion.

What is the explanation of the paroxysms which, in the case of this soldier, sometimes take place? They are evidently emotional reactions, and it is no longer a question of a mere trembling, but of jerking. A sudden noise, a surprise, an unexpected order, a painful memory of incidents of the war, all serve to bring about this phenomenon. It is a sudden movement of the whole body manifested more or less intensely on any of these occasions, varying according to the impressionability of the patient. In some subjects it is merely a sudden jump; in more emotional natures the first jump is followed by a series which gradually decrease; this is the jerking movement, or, as Littre aptly describes it—"The sudden agitation of a person profoundly moved."

The analysis of this jerking phenomenon is interesting, and it must be distinguished from Tremor.

The elementary motor reaction which produces it is due to a sudden contraction of nearly all the flexor muscles: The arms stick to the sides of the body, the forearms fold back on the arms, the fingers close, the thighs and legs close up together. The trunk curves forward except in a few exceptional cases; the shoulders are raised and the head lowered. The facial muscles also share in the general contraction; the eyelids close, the teeth and lips shut firmly. In short, the individual replies to an emotional shock by a general defensive reflex movement by which the body seems to shrink into itself. This phenomenon of retraction is found in all grades of living creatures—beginning with the amoeba—when threatened by sudden danger. It is followed by a more or less sudden and complete relaxation. Sometimes it is repeated several times in succession with growing intensity, followed by diminution. Such is the jerking phenomenon. This is exactly what is observed in this soldier, but in his case, the motor phenomenon is excessive and repeated a great many times, assuming the aspect of a general convulsive crisis which subsides only very slowly. When seated or lying down the emotive reaction has all the characteristics described under the name of jerking. When standing, the jerking of his lower limbs threatens his equilibrium. He then has the appearance of one suffering from that form of astasia—abasia or pseudo-chorea incorporated under the name of hysteria. After the jerking crisis, he gradually calms down. There remains only the Tremor, which is unceasing.

Gilbert Ballet has stated that certain tremors can be considered as "Mimicry of fear." This idea is quite correct as re-



gards the emotive paroxysms of our patient. They can be considered as the echoes of the initial emotion which he felt at the explosion of the torpedo,—emotion aggravated by commotion—and followed by the agonising wait at the foot of a mine trench surrounded by dead or wounded, for aid which was merely problematical. In the course of these paroxysms it was noticeable that his expression was undoubtedly that of terror. But if this explanation is admissible for the jerkings, it is not certain that it accounts for the perpetual tremor which by its existence and tenacity points to a durable and permanent perturbation of the neuromotor apparatus. It is not less true that a large number of cases of Tremor are, like the jerking phase, of emotional origin. Trembling itself is one of the common manifestations of emotion, very varied however, in intensity and localisation. It may affect the hands only, or the jaw, thereby causing the teeth to chatter. When the lower members are affected, the knees knock together. Sometimes it merely takes the form of very rapid and feeble shaking, and other times it develops into a veritable convulsive crisis. But whatever be its form, this post-emotional motor reaction is transitory; it generally disappears more or less quickly as soon as the first shock wears off.

When a tremor of emotive origin becomes settled and lasts for months or even years in the absence of ascertainable hysteria, it is difficult not to ascribe it to the existence of an organic disturbance. The emotive shock may suffice to produce this, a fortiori if there is added to the emotion a commotion accompanied by a sudden change of pressure as is the case in the explosion of large projectiles. (See Tom A. Williams *Differentia of Phobias and Obsessions*, Internat. Clinic, 1919, Vol. IV, where after years' duration, these are made to disappear in a week or so.)

The emotive nature of a tremor is confirmed first by its origin, then by the influence of emotional shock, which is capable of provoking it anew or of exaggerating it. Finally, one ought to seek for the signs of emotional constitution, the value of which Dupre has demonstrated, viz., hyper-reflectivity, tachycardia, sudden vaso-motor and secretory exaggerations. The majority of these signs were present in this soldier. But, in this case it cannot be proved that they did not exist before the accident. Neither is it impossible that the emotive syndrome was created totally by a violent emotion.

In analysing a case of Tremor, a mental examination is also necessary. In the case of our soldier, the man was quite aware of

his Tremor and its exacerbations caused him intense sorrow and humiliation. He was wretched at not being able to control the movement of his limbs. He suffered greatly on account of this powerlessness and particularly at seeing himself ridiculed by some of his companions, who took a malicious delight in bringing on these paroxysms. Therefore he lived in a solitary fashion, seeking only to efface himself. Dread of provoking his Tremor became with him a veritable obsession, in the psychiatric sense of the word. And it is true that if this Tremor had all the appearance of the shaking of fright, it is equally certain that this man was afraid of his tremor and its jerking phase. He presents, therefore, all the symptoms of the psychopathic state which Henry Meige described some years ago as Tremophobia, of which a brief description is as follows:

"This variety of phobia is not rare in subjects who are troubled with trembling of the head or limbs. Tremophobia participates in all the characteristics of obsession, resembling particularly the Ereuthophobia (fear of blushing) of Pitres et Régis. One sees it especially in persons of emotive constitution, and who thus have a predisposition to it. The physical phenomenon engenders the obsession which, in turn, amplifies the emotive reaction, while the exaggeration of the latter reacts similarly on the mental disturbance. There is thus created a vicious circle of reciprocal psycho-physical reactions, which ends in an evil state of obsession. Tremophobia can begin with a genuine tremor, one so-called constitutional, hereditary, neuropathic, senile or any other variety allied to a tremogenetic affection, or like Parkinson's disease, multiple sclerosis, Grave's disease, etc. The fear of trembling is also linked with ideas of humiliation, of loss of prestige, nosophobic anxieties, etc. In short, Tremor, be the cause what it may, can become, in subjects predisposed thereto, the beginning of an obsessive psychopathic state, that of Tremophobia. This description is applicable to the patient under observation. He is not only a trembler, a jerker, he is—to use a neologism—a 'Tremophobite.' "

Cases of this type are numerous at the present day. The following is a second example:

B——— was evacuated from the Front because of Tremor following upon prolonged bombardment. He was an artist, who for long months had cheerfully borne the hard life of the trenches, but there came a day when, after a particularly heavy firing, "the machine got out of order" to use his own expression. He began to tremble. The Tremor persisted, being particularly visible in the

head and upper members, especially the head, which vibrated laterally in varying degrees of intensity. The patient tried to master it by stiffening the muscles of the neck, but only with partial success. The trembling of the hands also was comparatively slight, not being greatly exaggerated by movement, capable of partial control by powerful contraction. On the whole, this man seemed to be in a state of controlled vibration. This bears some analogy to Parkinson's disease, but only superficially. Any doubt as to the emotional nature of this Tremor is dispelled by the co-existence of emotional, circulatory and endocrine reactions, and finally by a psychopathic state which the patient himself analysed exactly, as may be seen from the following:

"For nearly four months, ever since I was evacuated from the Front, my nervous state, which I thought would last barely a fortnight, still persists, although slightly ameliorated. There is no doubt that I am calmer. My heart does not beat as it used to do, neither do my hands perspire so profusely upon the occasion of the slightest emotion or effort. At first, the slightest shock would make me tremble uncontrollably. I can master the Tremor for a few minutes, but no longer. The noise of the doors of the Metropolitan, a wavering light, the whistle of a locomotive, the yapping of a dog, a childish peevishness, all have the effect of arresting the Tremor. The theatre, music, the reading of poetry, a religious ceremony—have exactly the same effect. I went lately to see a flag placed in the Invalides, and before the moving spectacle, I fancied myself cured. Then all of a sudden, I began to tremble, and to such an extent that I was obliged to sit on the ground and cry like a child. Sometimes the tremor came on suddenly without cause. For instance, I went to a shop with my wife to do some shopping. The crowd, the lights, the rustling of silks, the colors of materials were all a delightful contrast to our life of misery in the trenches. I chattered and was as happy as a schoolboy on holiday. Then, suddenly, without any reason, I felt my strength going. I stopped talking, I had a pain in my back, I felt my cheeks become drawn, my gaze became fixed, and the Tremor returned, and with it a feeling of great physical discomfort. At such times, if I can lean up against something, sit down, or especially lie on my back, the tremor diminishes or even stops pretty quickly. . . . I feel uncomfortable under three circumstances—upon waking after ten to eleven hours sleep; then after meals, especially good ones. Finally and above all, under the electric douche. There, as if by magic, my ideas become clear, happy and powerful. I

feel myself again. This lasts for an hour or so, and then I fall back to my former unhappy condition."

A very good description of Emotional Tremor.

This is where the Tremophobia comes in:

On a tram, or in the Metro, I feel that people are looking at me, and it makes me miserable. I know that my state inspires pity. One good woman offered me her place. I was touched to the bottom of my heart. But when they look at me and say nothing, what are they thinking? This uncertainty causes me a good deal of suffering. If only I can talk, I don't feel it so much, because they can see then that in spite of my trembling I am not a poltroon. What a sad state to be in.

There is no doubt that Tremor of this type is accompanied by an amount of moral suffering which it would be unjust to ignore.

A final question arises. What is to be done in a case like this? According to Meige medicamentary means have little hold on tremor whatever their nature may be. The only medicaments which have a sedative effect, and that only a short one, such as hyoscamine, hyocine, duboisine scopolamine, etc., ought to be used with the utmost caution. In one case static electricity produced a very happy result, but this is not invariable. Finally, from a military point of view, the following seems to be the best method to adopt:

First—A period of observation—of the characteristics and evolution of the Tremor. If the latter does not abate, grant leave of convalescence for one or two months. Then a fresh period of observation lasting for about a month, *under the same doctor*. After that, if the Tremor persists with the same characteristics, temporary discharge should be granted. When the man is called up for re-examination it is desirable that the Doctor who previously attended to him be called upon to give his opinion. We can do much better than this (see loc cit "Phobies.")

In concluding his article, Henry Meige makes the following remarks regarding the medico-legal decision to be made with reference to Tremophobia:

"When it is a question of Tremor following upon traumatisms, notably in cases of industrial accidents, one must beware of simulation. In the second place, an appreciation of the motor disturbance must be arrived at in order to know where Tremor ends and Tremophobia begins. In cases of Tremor following upon accident, it is not unusual to find that the subject, in the course of medico-legal examinations has

cultivated voluntarily and consciously a manifestation of the effect with a definite end in view, and at other times it may be a return of the malady to which Brissaud gives the name of *sinistrosis*. But in other patients, Tremophobia and psychopathic disturbances may also serve to exaggerate the Tremor. The Doctor-Judge ought to know this."

As to the evolution of the incapacity which results from Tremor, this varies considerably in accordance with the intensity and the localization of the motor disturbance, and whether it is influenced or not by movements adapted towards the fulfilment of a definite end, by emotional shock and finally according to the patient's profession. If it appears impossible to fix in advance a percentage of invalidism, it will be necessary to devote to Tremor, chapters in greater detail than these which appear in the currently-consulted military hand-books, in order to arrive at a correct appreciation of the remaining physical aptitude, or for the necessity of preparing the papers of discharge. (See Treatment of Military Hysteria, *Military Surgeon*, Nov. 1919; also Emotion in Warfare, *Jour. of Abnormal Psychology*, 1919.)

#### PHYSIOLOGICAL FACTORS IN TREMOR

I. A type of Functional Tremor of somatic origin is that provided by the injection of adrenalin. It is a question whether this has any relation to a possible modification of muscular tonus by the influence of adrenalin upon the sympathetic fibres which now we know do enter the muscles, perhaps destined for the sarcofibrils. On the other hand, the phenomenon may be a chemical one due to the oxidase which some experimentalists believe to be an important constituent of adrenalin.

II. To be compared with this tremor is the coarse intension tremor of insular sclerosis, the physiological basis of which is regarded as an absence of proper insulation due to the destruction of the white substance of Schwann, whereby the nerve impulses are rendered irregular. This interpretation is particularly favored by those who believe in the identity of nerve energy with electric energy. The Tremors seen in alcoholic neuritis are the more explicable in a similar fashion, namely, that the alcohol has modified the lipid material of the white sheath so that it ceases to insulate adequately. The extreme of this condition is seen in the anatomical appearance of alcoholic neuritis, in which the white sheath has first broken down into droplets and eventually disappears.

III. A different set of considerations must be borne in mind, however, in relation to the influence of the cerebellum upon tonus, which leads to the jerky movements, the disorder of which function produces dysergia. This disorder should be opposed to that derived from disturbances of the cerebrum, for the function regulated by the cerebrum is not regarded as that of tonus which is controlled by the sarcoplasm, but is believed to be the clonic function which permits of rapid intentional movements and is regulated by the myofibrils.

An analysis of these respective elements is necessary if one is to correctly envisage any case of tremor other than one of psychogenetic type. (See forthcoming Book on Disorders of Nervous System in Warfare.)

#### THE TREATMENT OF TREMOR

In several French and at least one British clinic, attention to the practical aspects of chronic tremor has been stimulated by the questionnaire which was sent by me in November, 1917. In one of these centres, the study of the question has led to the conclusion that the vast proportion of cases show that a Tremor is in reality within the patient's control if a sufficiently powerful stimulus is brought to bear upon him. To this generalization there are only two exceptions, namely those Tremors due to organic disease of the nervous system which is characterized by very distinct and unmistakeable signs, and secondly those Tremors of emotional provokatis, which show themselves as very fine oscillations. These are in all probability due, not to the emotion itself, for in acute emotional conditions the Tremor is of a much coarser kind. They are probably, therefore, in reality of chemical mechanism, being of the same type as those seen in toxic conditions. They do not differ in any way from those exhibited in Grave's disease. They are accompanied by tachycardia, flushings, hyperhydrosis, insomnia, restlessness, over-excitability, emotionalism and even progressive emaciation, and these patients are indistinguishable from the mild cases of hyperthyroidism which are seen so frequently by those who look for them in civil practice.

Hesitation regarding the pathogenesis of tremor in many cases which do not possess the usual characters of organicity nor of toxicity, has been largely due to the fact that there has been failure in them of the treatment which succeeded in cases which seem similar. This argument, however, is not valid, for there has not been taken into

account the variations of individual resistance to psychotherapeutic interventions, and that the simple slight and often half-hearted intervention of suggestion, persuasion, reinforcement by electric apparatus, the example of the cure of other patients which is sufficient in the majority of cases may be quite insufficient against the more resistant type of person. Reflection upon this issue, the result of my questionnaire, led the chief of one Neurological Centre to recall several patients whose Tremor he had concluded was organic because he had failed to cure them. Reconsideration of the matter led him to believe that the Tremors in question must be purely functional and their regulation within the patient's power. He accordingly retreated those patients much more intensely, pushing the appeal to the utmost, and in all cases ultimately succeeded in causing the complete disappearance of the Tremors, which was a complete proof of their non-organic nature. One of these cases was particularly instructive; for the man had received a wound in the left parietal region which apparently was the cause of a clonic tremor of the right arm, which persisted even in sleep. Further there was a history of Jacksonian attacks. This man had been discharged from the army under the belief that his condition was due to the wound in the head. A colleague, however, insisted that there were no organic signs whatever, and that the Tremor furthermore seemed to him such as might be reproduced intentionally. The patient's power of inhibition was very strongly stimulated by means of very powerful faradism which he knew would be prolonged for several hours unless recovery occurred as had been the case with other patients. The result was that after an ineffectual struggle he began to control the Tremor, which completely and permanently ceased at the same sitting.

The *principle of treatment* depends upon the fact that when intentional and purposive movements are made by such patients under strong stress, there is always a tendency to cease trembling. It is a reaction similar to that which occurs in paralysis agitans, in which the trembling usually ceases when co-ordinate movements are made.

#### METHOD OF TREATMENT

Movements are compelled by means of a desire to avoid the painful stimulus of the faradic current. The physician orders a movement, such as that of lifting the leg, places behind the limb two electrodes held in his hand. The tremulous oscillations of the pa-

tient cause his limb to touch the electrodes from time to time, which is exceedingly painful. As a result, he can scarcely help steadying his movements. By means of a series of back and forth movements directed by means of the electrodes the Tremor entirely ceases. When this occurs, the patient is ordered to make movements unassisted. The mere threats of the proximity of the electrodes usually suffices to prevent further tremor. The patient thus exposed in his pretention that he could not avoid the Tremor, knowing that the Doctor knows that he can do so, and convinced himself that if he does not stop the Tremor further pain will be inflicted, does his best to cease trembling, and invariably succeeds, as now the motive to stop the trembling is greater than formerly was the motive to tremble. The psychical process is not really different in principle whether the patient is an active simulator or whether he really believed that he could not cease trembling.

Thus it can safely be said that if there is no local exaggeration of the reflexes, no rigidity of the muscle of the lead pipe type, no signs of disturbance of cerebellar innervation, that any Tremor in which the movements are more than vibratory in extent, is psychogenetic, and is susceptible of and can be made to disappear when the proper means are used. It is also safe to affirm that a tremor which is merely vibratory is not psychogenetic, and is in all probability due to chemical modifications acting upon the nervous system, and therefore demands medical treatment as well as psychological. (For diagnostic data see Tom A. Williams, *N. Y. Med. Jour.*, March 6th, 1920.)



# THE DUTY OF THE PSYCHOPATHOLOGIST TO THE MAN ON THE STREET

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**W**HAT the man on the street has in his mind concerning the varying concepts of abnormal psychology will no doubt always remain more or less of a mystery. Indeed, it is considered doubtful by some if any concern should be shown toward the attitudes, opinions, and working hypotheses of the lay mind. When, however, the topics are as intimately connected with the everyday activities of one as are dreams, suggestibility, memories, and, in view of the present craze and free publicity of even so-called occult phenomena there is considerable justification for an effort to probe into the opinions of the man on the street and attempt to ascertain the level of the common sense concepts that are held by him. Such information is especially of value to one interested in the application of the more firmly established principles of abnormal psychology to mental welfare.

Accordingly it was attempted by the writer to get below the mental surface of the man on the street to some degree and in a fairly accurate manner find what his common sense knowledge is with reference to the cardinal conceptions of abnormal psychology.

The most important texts designed for use in college classes or for the general reader on the subject of abnormal psychology were carefully examined and the topics which seemed to be most emphasized and of most value culled from each book. These topics were then further selected by eliminating those that were to a certain extent quibbles of different writers or schools and only those retained that would lend themselves readily to be incorporated into a questionnaire that the average individual might intelligently comprehend. In order to stimulate interest and to make what was wanted easily understood it was necessary to use concrete examples and situations in the questioning rather than the more abstract formulations that are found in texts. These considerations made it impossible to probe deeply into any one concept and forced the elimination of some which, fortunately are not of marked value outside of professional uses. This may ac-

count to some degree for what may be considered by some the somewhat random and unsystematic selection of topics.

The question of the method of distributing the blanks was solved by using insurance solicitors to distribute the blanks to their clients and solicit the return of the completed form. This method brought surprisingly high returns and made possible an unbiased sampling of cases. The blanks, on the whole, were carefully and intelligently completed, a not inconsiderable number of the recipients thinking the questionnaire had something to do with their acceptance as a risk.

There are a few over 100 forms distributed and returned but only the first 100 to be returned are incorporated into this report. This makes most of the figures given percentages. The group was composed entirely of males ranging in age from 17 to 56 years. The distribution of the age groups by decades is:

Decade	Number
11-20.....	2
21-30.....	40
31-40.....	31
41-50.....	24
51-60.....	3

Only three of the group had attended college and but one of these was a college graduate (attorney). \* The following is the distribution by education:

Education	Number
Common school (unfinished).....	28
Common school (finished).....	48
High school (unfinished).....	16
High school (finished).....	5
College (unfinished).....	2
College (finished).....	1

There was a wide range of trades and occupations represented by the group. In all things the 100 men may be taken as fairly representing a typical section of the average adult male population.

The subject of dreams made the most interesting and easy approach and began the questionnaire. All of the group stated that they dream more or less frequently. There were 63 who thought there were people who do not dream. Asked regarding the causes of dreams 72 frankly admitted they did not have any idea. The causes given by the remaining 28 may be listed as:

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Cause	Frequency Given
Kind or amount of food.....	15
Worry, conscience, etc.....	12
"Disturbed sleep" .....	1

It is noteworthy that on not one of the blanks were two possible causes listed.

There were 59 who thought dreams sometimes prophesy events that are to take place in the future. This is indeed surprising that over half of this group of able-bodied and otherwise sound men should believe in even the occasional prophetic import of the dream life. To the question which aimed to find out whether or not any of the group were in any way acquainted with the wish-fulfilling aspects of dreams no relevant replies were given. Only thirty-four attempted replies on this question and all of these were scarcely refined guesses. This may be due in part to the form of the question, which, in order not to suggest the reply was very difficult to construct in a desirable manner. One who is at all familiar with this aspect of the dream life, however, can at once understand the purport of the question as it was formulated so it may safely be inferred that this view of dreams is foreign to the concept of the dream held by this group.

The subject of hypnosis was next in order. Demonstrations of hypnosis had been seen by 31 of the group. These exhibitions had taken place in the theatre. Only one had ever been a subject and that was an unsuccessful attempt by a physician. There were 64 who, while 13 frankly stated they thought it all a fake, did not place any belief in the validity of the phenomena. It should be noted in passing that of the 31 who had witnessed an exhibition of hypnosis 8 considered it a fake (this term was used spontaneously and was in no wise suggested by the wording of the question) and but 6 expressed confidence in the possibility of there really being a bona fide hypnotic condition. There were 36 who believed in hypnosis. Of this number 14 thought the hypnotist possessed some extraordinary power but were unable to specify what this power was except one who simply stated, "personality;" to the remainder it remained something uncanny. Eight of those who believed in the possibility of hypnosis thought not everybody could be placed in that state and 5 specified "weak will" or an equivalent expression as an essential characteristic of a good subject.

Using the illustration Angell gives of post hypnotic phenomena<sup>1</sup>

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<sup>1</sup>Angell, J. R., "Chapters from Modern Psychology," p. 131.

and asking if they thought such a thing could really happen, 2 of the 36 thought it could and 2 of the 36 thought it might, but if it did it would be a sign of mental weakness. The remainder entertained serious doubts regarding the possibility of such an occurrence.

An hypnotical case of multiple personality much similar to that given by Angell<sup>2</sup> was given and the degree of belief in the possibility of such a case actually occurring was asked.

20 gave no reply.  
49 thought it impossible.  
12 thought it rarely possible.  
19 thought it possible.

One of the group had been in actual contact with a case of multiple personality at one time and was interested in reading about such cases.

The question regarding the subconscious was the most difficult to devise. The question as it was finally adopted did severe violence to several aspects that are very tenderly regarded by those who have a scientific concept of this phase of abnormal psychology but it was necessary in order that those to whom it was addressed would not confuse it with simple memory and would understand more clearly the aim of the question. The answer to this question was either yes or no. There were 12 who replied in the affirmative and who had a more or less vague concept of the subconscious. The reason they believed there was such a thing as the subconscious was because 2 had read about such a thing and the remaining 10 retrospected and applied the question to their past experience citing the instance that led them to believe in the existence of the subconscious. It must be admitted that most of this evidence was decidedly unseaworthy.

So far the results have been mainly negative. There have been but slightly developed concepts where they did exist and in most cases they have not existed, or if they have it is only in a badly distorted condition mutilated almost beyond scientific recognition. When we pass to occult manifestations, however, the tendency is in the other direction. Only 3 questions were asked regarding supernatural manifestations. These concerned spiritualism and telepathy.

"Do you think the spirits of deceased persons live and *can communicate with us?*" There were 58 of the group who replied in the affirmative! Their belief in this was justified as follows:

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<sup>2</sup>*Ibid*, p. 138.

- 54 had read of instances of communication.
- 3 had dreamed of the deceased.
- 1 had actually been in communication.

The negative replies totaled 39 and the remainder were non-committal. All but 2 of the 58 believed there were only certain persons who have the power of getting into touch with the spirits of the departed and hold communion with them.

The testimony for telepathy was not so overwhelming. Thirty-three thought ideas could be transferred from one mind into another without any external aid. One person gave as the cause for his belief a rather unusual coincidence to which he was a party, but the 32 took refuge in the reading of certain articles for their justification.

None of the group had read anything about hypnosis or multiple personality. The two who had attended college had read a little regarding the subconscious in connection with a course in psychology. Dreams had been the subject of an article in a Sunday edition of a newspaper which was read by one and 3 had read in an advertising folder concerning dream interpretation. Compare this meagre amount with the reading which was actually forced upon their attention centering about the occult phenomena.

It will be frankly admitted that the concepts entertained by this group regarding spiritualism and telepathy are injurious. It must also be admitted that in general a greater faith was shown in the occult phenomena than in the facts known to abnormal psychology. To a certain extent this is in itself harmful. The fact that a large amount of space in certain newspapers and periodicals is featuring hypernatural things tends to lend credence to such impossibilities. Abnormal psychology, on the other hand, tends to remain more academic and avoid all sensationalism. There is a fertile field for semi-popular articles dealing with different phases of abnormal psychology so written that they will catch the eye and the mind of the man on the street. The function of these would be two-fold; they would aid in up-rooting certain unwarranted concepts and would add to the stock of working hypotheses. The psychopathologist and psychologist should avail themselves of the opportunity to relieve their minds of controversial points and produce something that will aid in building fuller, more accurate concepts of their science in the mind of the man on the street. So long as abnormal psychology remains a purely academic discipline it is not fulfilling its greatest mission.

## REVIEWS

PSYCHOLOGY AND PEDAGOGY OF ANGER. Roy Franklin Richardson. (Educational psychology monographs, No. 19); Warwick & York, Baltimore, 1919. 100 pp. Price \$1.25.

CHILD'S UNCONSCIOUS MIND. The Relations of Psycho-analysis to Education; a book for teachers and parents. Wilfrid Lay. Dodd, Mead & Co., New York, 1919. 329 pp. Price \$2.00.

PSYCHOLOGY OF THE NORMAL AND SUBNORMAL. Henry Herbert Goddard. Dodd, Mead & Co., New York, 1919. 349 pp. Price \$5.00.

**A**BNORMAL Psychology is by tradition the province set apart to deal with characteristically "queer" reactions of the human mind, such as dreams, emotional disturbances, manifestations of the subconscious, prodigies of memory and all other sorts of anomalous phenomena which so-called Normal Psychology has overlooked as somewhat too disturbing to the smooth course of its academic teachings. In academic circles the "abnormal" psychologist is—as the unfortunate term would imply, something of a curiosity, something *hors ligne*, and, as such, considered unable to "toe the mark" of the ordinary cut-and-dried University psychology. For this reason, perhaps, the pursuit for their own sake of the subject-matters of Abnormal Psychology has afforded its devotees neither a settled intellectual habitation nor a definite scientific name. Yet these gypsies amid the staid hosts of psychology have, by dint of comparisons, obtained from the remoter fields of mental anomalies, a dawning suspicion that their own more inclusive point-of-view may still prove worthy to inform the particularistic standpoints of the psychiatrist, of the psychopathologist, of the psychoanalyst, of the behaviorist.

Indeed, unless nothing at all can be inferred from the history of science as a whole, Abnormal Psychology, with its wider outlook, should furnish us with a sort of *philosophia prima* or summary philosophy that would supply general axioms for the more particular propositions of the above mentioned specialists. That Abnormal Psychology should develop a characteristic psychological *critique* may be illustrated by a review of these three books, which by their diversity are a challenge to us to take a unified view of the phenomena they testify to.

The roaming and hardy adventurers who go caravanning through the clinic, the psychological laboratory, the school room, the institutions for the feeble-minded, the insane hospital, the religious revival, the rehearsal room of the child prodigy, and the open places where "crowd psychology" shows itself may be presumed to personify Abnormal Psychology as such. They possess a sort of resultant personality with an outlook of their own and a cast of thought peculiar to themselves. Hence, we may speak of the student of "queer" reactions, of mental anomalies, as the Anomalist, a man or woman of definite experience in this field and opinions born of these same experiences. Indeed, the Anomalist should,

ideally, be a person with a balanced view of all the phenomena of Abnormal Psychology—master of all, but slave of none.

From this standpoint of Abnormal Psychology, Richardson's slender and unpretentious volume does not seem very adventurous. But when contrasted with the ordinary cut-and-dried academic presentations of mental Anomalisms—if we may so speak—it is an innovation. It departs from conservative tactics by virtue of dealing with human motive in its more recondite phases, by spreading upon the tablets of scientific record some things really deep in human nature.

That is to say, Richardson's subjects have revealed their vexations, their moments of annoyance, their little—and some of their big—reactions to the pains that have been put upon them in "situations stimulating anger."

The interest of Richardson's "Psychology and Pedagogy of Anger" is, unfortunately, very much obscured by the almost damning deficiencies in typographic arrangement. If we dip here and there in this booklet of one hundred pages, we shall find ourselves somewhat lost owing to the lack of running heads and section titles, needed to make the subdivisions of the topic clear. For this reason, the full tableau of Richardson's topic analysis (largely omitted in the printing of his book) may be given here (p. 413) to show the essential nature of his contribution.

Richardson considers the emotion of anger as having a beginning, a middle or climax, and an after-effect—a simple enough idea, valuable not so much for its novelty as for the fact that it is a subdivision of the topic that insures a further ramification of analysis; thus guaranteeing more intensified attention to the phenomena of anger.

The author's method may best be told in his own words, lifted bodily from page six as below:

**METHODS.**—The method in the present study has been to observe anger introspectively as it appears in every-day life. Ten graduate students of Clark University and two persons outside of the University volunteered to observe their emotions for a period of at least three months and report to the writer each day from the notes of their introspection. . . . They were asked to observe the conscious fore-period before the emotion begins, the development of the emotion, the disappearance, the diminution the consciousness after the emotion has disappeared, which is recognized as having been influenced by the emotion. . . .

Ten of the observers were graduate men students of psychology. Seven of these had had considerable experience in introspection under controlled laboratory conditions.

It is from the standpoint of the Anomalist, the student of anomalies, as we have called him in previous reviews, that the study falls short. And this comes about from the fact that the subjects in Richardson's analysis did not meet with the extremes of emotion which serve to bring out the deeper characteristics of instinctive reactions, like anger. He has not ventured far enough into the realm of study that is characteristically that of the anomalist, and for which

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subjects can be obtained not among a picked class of college students (particularly graduate students) but in the slums, in the home of ill-controlled personalities and in the psychopathic clinics of hospitals. Richardson has collected what came to hand and analyzed it with sufficient minuteness. He goes deep enough into the details of how Subject A and Subject B felt, but he does not gather these various expressions together into a comprehensive picture of anger. In other words, his collection of anger phenomena is extensive and varied enough so far as it goes, but his conclusions suffer markedly from the tameness of the situations that stimulated anger, as dealt with in these reports of introspectors.

The demonstration of the anger-mechanism operating at full blast is thus deficient in Richardson's study. None of his subjects reveals that anger which comports with "battle, murder, and sudden death," which are, after all, phenomena of first rate interest to the Anomalist. Yet his study has the merit of dealing pretty exhaustively with "envy, hatred, malice and all uncharitableness," which are by-effects of anger and part of its phenomena.

It is in the third section that Richardson's adherence to normal material (only in the sense that his subjects are normal) makes itself felt. He would have more to say in Chaps. 3, 4 and 5 about the aftermath of anger (Chap. 3 Disappearance of Anger, Chap. 4 Conscious After Effects) if he had dealt with a serious quarrel among his subjects and had followed the conscious after-effects into the realm so familiar to the anomalist in psychology, of the grievance, the mania for revenge and so on. He might have added to Conscious After-Effects (Chap. 4) a third section entitled (as the anomalist would have it) "Feud, Vendetta and Neurosis." Even with his normal subjects, he might have found more to say about the subconscious aftermath of anger—say, from *dreams*.

From the standpoint of broadening the appeal of Abnormal Psychology, Richardson's deficiencies are more than made up for by the fact that there has been completed an outline and study of emotion, looked at from the angle of established psychology. Richardson has not slighted the prevailing tendency to study mind from the standpoint of *situation and response*, and he has made a very suggestive delineation of the "situation that stimulates anger."

He has also contributed, in the second section, to what may prove to be a valuable compromise between the ideals of the radical group in psychology known as behaviorists, and those who are not satisfied with the rigid exclusiveness of behaviorism, by entitling his second chapter: "The Behavior of Consciousness."

If we admit "behaviour of consciousness," then the way is open for a complete reconciliation between those who make behaviour their object of study and those who still cling to "introspection." One cannot, of course, exactly compare Richardson's gathering of examples showing the "behaviour of consciousness" in anger with the studies of Cannon showing the "angry" behaviour of say the adrenal gland in the case of a cat that is being barked at by a dog. But—with the exception of the lack of the printer's art to bring out the intel-

lectual values—Richardson does give particular attention to exhibiting the effects that go to make up the response of consciousness to anger situations.

In general, the plan of the study of the "Behaviour of Consciousness" is worthy of imitation by other students who may wish to continue an analysis of emotion from the psycholexic standpoint, that is to say, as the derivation of the words imply, emphasizing the variety and scope of facts "gathered" (legomen) rather than what can be "measured" (metro).

The importance of Abnormal Psychology to education is brought to our attention by Richardson's animadversions in Cap. 5 concerning the emotional function, as also in his preface by his references to Aristotle. The question is inevitably raised in one's mind as to whether a more intensive study of anger and other emotions would not also represent an intensive contribution to education.

Richardson's work may be called an innovation because it may help other academic psychologists (i. e. affiliated with universities in methods or employment) to realize that they, too, can handle with dignity and without the much too-feared luridness of Psychoanalysis some other one of the human passions. And although Psychoanalysis is supposed to have paid more than enough attention to the sex life, it would be amusing to have the world discover the inadequacy of the Freudian cult, if a psychologist in academic circles should have the courage to publish on the plan of Richardson an analysis of the falling-in-love experiences of say twenty selected subjects in either sex at a co-educational institution.

**T**HE STRIKING thing is (for the Anomalist) that, in these three books, not only does Richardson stress Aristotle's principle of the education of the emotions, but that this suggestion forms the main current underlying Wilfred Lay's work on the "Child's Unconscious Mind" and also is frequently adverted to by Goddard, especially in his conclusions to "The Psychology of the Normal and Subnormal." It is the topic now coming to be called "mental engineering" or better "mind husbandry." Thus we see exemplified the striving of the constructive temperament of the educator, who must rely on something not altogether scientific. For we may truly say of Education what Morton Prince has said of Re-education (in the neurosis), namely that it is a task of Art, not of Science.

These three books may thus be appraised—and praised—as weighted mainly with constructive thought, looking toward the building of character, with particular reference to the emotional life. Our authors echo, almost word for word, the statement of Descartes, when he penned the opening sentences of his "Treatise on the Passions":—

"There is nothing more clearly evinces the Learning which we receive from the Ancients to be defective, than what thy have written concerning the Passions. For although it be a matter the understanding whereof hath ever been hunted after, and that it seems to be none of the hardest, because every one feeling them

in himself, need not borrow foreign observations to discover their nature. Yet what the Ancients have taught concerning them, is so little, and for the most part so little credible, that I cannot hope to draw nigh truth, but by keeping aloof off from those roades which they followed. Wherefore I shall here be forced to write in such a sort, as if I treated of a matter never before handled." (P. 1. "The Passions of the Soule," London, 1650).

It follows from this precedent in the study of the emotions that the three works of Richardson, of Lay and Goddard, are in some sense, more or less unwittingly harking back to DesCartes' psychology of the emotions and attempting to resume this study in the same spirit that has made the Cartesian treatise a monument of suggestiveness. Let us hope that the suggestions in these works mature better and secure more general consumption than similar progressive ideas have obtained in the last three centuries.

DesCartes himself proposed that we advance toward a definite goal of improving the nature of man by mind-husbandry, not through the archaic devices of the ferrule on the pupil's hand or the rope's end on the sailor boy's back, but through a technical process deliberately in keeping with available knowledge of the nervous mechanism. This is the crucial point; and this old idea of mind-training must be continually refurnished with its modern implications, as these three books in their measure do.

This progressive technique of training has indeed already been endowed by Dr. Morton Prince with a definite name. He designates the scientific development of habits and the training of the emotions by the name of "complex building" (See "The Unconscious," 1914). This comports with a clarified conception of the elements that go to make up a mental reaction and a visualization of the operations in the nervous channels or neurograms. At the same time, he recognizes that the morbid complexes on which the psycho-analytic school have written so strikingly are not to be set apart from normal mechanisms in which "Complexes" (as normal systems of memories or habits) may be operating in less lurid fashion.

The author of "The Child's Unconscious Mind" is more deliberately concerned with the improvement of methods of training the human being, than the other two writers. He does not attempt a book in that tone of laboratory experimentation which Richardson maintains throughout, nor does he assume to be writing a text-book as Goddard does.

The sub-title is "The Relation of Psychoanalysis to Education, a Book for Teachers and Parents." As such, it may be recommended to both these classes of readers, provided they will take it with a grain of salt. The necessary sprinkling of salt should come from the continual remembrance that this writer is essentially a convert to the well-known Freudian theories, and that he is trying to give them fruitful application in his own particular field, which is that of Education. As the author of *Man's Unconscious Conflict* he gave a pretty expression of the Freudian viewpoint concerning the more inaccessible regions of the

soul. He described an Olympus, as it were, of the Nervous System where the various psychoanalytic gods and demi-gods continually disport themselves under the name of Libido, Endopsychic Censor, Repression, Sublimation, Regression and the like. And, in true mythological style, he described their disputes for the governance of the mind—the great occasion of Man's Unconscious Conflict.

With this successful beginning made, it was natural that Lay should wish to carry over his interpretation of the Unconscious Conflict into the field of child training. In any case, the anomalies of mental growth are best exhibited from the angle of child-study. His introduction shows this very clearly:

"A deeper knowledge than ever before is now possible concerning the nature of the child, and with it the nature of the problems of education."—"The new knowledge is a knowledge of a hitherto unexplored, or at least unsuccessfully explored, stratum of the mind, as evident in the child as in the adult, and in the child more controllable than in the adult, because more fluent, less fixed and crystallized." (p. 1).

His conception of the "method of the newer psychology" (p. 1) appears, however, rather perfunctory, for what he himself applies is not the standard method of Science, but distinctly the dogmas of Psychoanalysis.

#### THE CATACOMBS OF THOUGHT

Touching the technique of complex-building we may question whether Lay can justify the psycho-analytic methods of approaching this task as sufficiently rigorous. In this field, we face a scantiness of well-thought-out principles of SYNTHESIS, similar to the deficiencies of ANALYSIS that Descartes contemplated about A. D. 1640, when he wrote his "Passions de l'Ame." Indeed Abnormal Psychology is only just now bringing into clearness the conception of the Automatic Self which Huxley's Essays brought to the attention of scientific thinkers, after Darwin's researches had revived the topic of Animal Automatism.

If Lay adhered to the mainly physiological conceptions of the Automatic Self, in the style and mode of Thomas Huxley, instead of plunging into disquisitions on the varieties and combinations of conscious, subconscious and unconscious processes, he would have left an impression of greater clearness upon the reader. As it is, his dealing with the Subconscious is marred by an almost amusing adherence to old-style philosophy, in place of modern physiology—which he scarcely touches at all. This is indicated by his ringing the changes on all the possible combinations and permutations of Subconsciousness and Consciousness that could conceivably go to make up a given mental state. And he accomplishes very little thereby, except a good imitation of an old-style exercise for turning a syllogism every-which-way! Thus he takes the present provisional term "the Subconscious" and its derivatives too seriously.

Some day, let us have a round-table conference where leading gentlemen

interested in the sub-cellars of the mind shall come to an agreement to intend or *mean* the same thing when they use the same word. As yet neither we nor Lay possess the advantage of clear terms on this topic.

There are other things in his book that he deals with much more successfully than with the attempt to give a systematic view of the relation between consciousness and subconsciousness. In practical things like the mechanism of blame he "comes out strong" with cautions about the teacher's attitude, of which an instance is the following:

"The attributing of blame to anyone is concentrating attention on the destructive aspect of the act, magnifying it in a way gratifying to him, and satisfying his desire for personal attention, blaming anyone for what he has done once or habitually does is a very irrational procedure for a teacher who believes that many acts are caused by unconscious thoughts, for the reason that no person who has not been introduced to his own unconscious and shown a method of controlling it, can be held responsible for what it makes him do. This fact does not release a pupil from real responsibility for his conscious acts done from conscious thoughts. It only places responsibility for certain errors where responsibility really belongs, if causation by the unconscious thoughts involve any responsibility." (*The Child's Unconscious Mind*, p. 125).

The author's illustrations of blunders and lapses show us that he is at home in Psychoanalysis; he gives enough illustrative material to make his text interesting. In delving into unconscious mental processes he tries to give personal observations whenever possible. His work is addressed to teachers and, so far as lies within his power, he supplies *definitions* to make the study easy. He earns our gratitude in this way by his effort at definiteness, and, further, by avoiding the excessive reliance of psychoanalysts (for their illustrations) upon citations of history and literary works and upon quotations of poetry.

#### THE QUESTION OF VERBALISM

Lay's difficulty is that he has too much to say: more than our inadequate science can accommodate in its present vocabulary. This, indeed, is unfortunately the condition of affairs that compels Lay to beat out a few simple Freudian conceptions into a pie for the whole school tea-party. Considering the difficulty of such a thing he does it very well, but the crust breaks down every now and then; thus, actually the weakness and lack of cohesiveness of the Freudian formulations are very well depicted. He does furnish a sort of a language, or marks to call things by, that can be made to contain some very helpful ideas in child-training.

He deserves to be commended for making a striking practical presentation, on the platform of a somewhat shaky scientific cult like Psychoanalysis.

Of course the great trouble (and this book shows it up) is that the Freudian conceptions do not really fit very well into the scheme of normal life: "Sublima-

tion" is an involved conception, obscuring the fact that what it really implies is re-education out of bad habits; lapses and blunders do not always signify trouble in the "unconscious" wishes," but may be mere fatigue (and, as such quite differently of interest to the teacher); Resistance and Transference are one-sided notions that the teacher can take too literally from psychoanalysts. In result, by taking too much for granted from Psychoanalysis Lay's system for explaining the unconscious mental life is weak in many spots, from the standpoint of pure science.

It remains to be seen, however, how long this system will help us when the capacity is tested beyond its present limited requirements for satisfying the beginner. But even if Lay's application of the Freudian method to Education should be temporary it will still have served some purpose in bringing the unconscious life of the child to the fore-consciousness of teacher and parent. The real application of Abnormal Psychology to education is a long way off and when it comes it will have to be something more mechanistic than Lay has been able to supply for complex-building.

To many this book will be a "revelation" from the fact that it asks the parent and the teacher to conceive at all that there is a "Hinterland" to be explored in the mind. (Lay quoting H. G. Wells).

Teachers may well use it as a *vade mecum* in exploring the "deeper strata" of their pupil's mind. Systematic correctness is not the first need at this stage of Abnormal Psychology. The main thing is OBSERVATION AND AGAIN OBSERVATION of mental phenomena, of what lies back of a given act in the schoolroom or on the play-ground. The volume abounds in sincere searchings after the essential and informative truths of human nature in its below-the-surface sense. And the reviewer pays his respects to the earnest purpose that underlies this résumé of what Psychoanalysis can suggest to the teacher.

**A**NYTHING that Goddard writes is likely to be of interest: has not the author of "the Kallikak family" (something everybody can understand) earned the right to many a success d' estime, if nothing more?

His pronouncements in normal and subnormal psychology adopt a tone of finality that is fitting to the role of a text-book. Goddard seems, in last analysis, to be no less interested in complex building than Lay. His preface states the important things to be considered as (a) concept of mind unity and (b) study of the emotions. But whereas Lay essentially presents to us a study of the way and the form in which Complexes have BUILT THEMSELVES into the child's consciousness or subconsciousness (as the case may be), Goddard is concerned in trying to make us visualize the physiological conditions. That great tangle of fibres in which complexes can be developed is discussed by him with surprising directness, in the first chapter. This leads directly to the "subnormal" and the topic of how the subnormal individual's brain finds itself limited in constructing enough complexes for the business of Adaptation. This may prove a more

than usually vivid warning for too sanguine practitioners of complex-building, or re-education.

In a sense, Goddard apologizes in advance for any misfit between his text-book and the province of the Abnormal in general by a title narrowing it down to the SUBNORMAL branch.

It is a textbook that is likely to hasten the popularization of Abnormal Psychology as a science destined to take more closely into account than even Goddard does the relation between mental anomalies and the nervous mass. But that Neurology is not ready for even his degree of simplification is more than evident.

Goddard's slashing way of settling involved strands of opinion gives refreshing support to the dictum of a very successful class-room exponent of modern physiology. We quote from memory a remark of Dr. Burton-Opitz of Columbia University:—

"I want them to understand Physiology and not simply be able to talk about it. I want them to get into the spirit of analyzing the bodily mechanism. And to simplify things (whenever I think it will help) I tell the story *wrong*; and, then when they are ready for it, I go back to the topic and put in the corrections."

This is what Goddard in a measure does. He treats many things on this plan that the "end justifies the means." The University laboratories are likely to protest against some of his too ready simplifications.

The "philosophy of the organism" is well-represented by Mosso's "Mechanism of the Emotions" in the Appendix. But the relative value of different trends of opinion and different modes of approach to the problem of Psychology receive scant attention. The Appendix also contains an excellent Bibliography, well arranged. The summaries to be found at the end of each chapter are a valuable addition to this text-book; and the illustrations throughout are good, with explanations suitably attached.

Although headed for simplicity, Goddard omits a very possible simplification in his language by failing to employ the word *neurogram*, already sufficiently made known by Prince; he uses the term *neurone-pattern*. This conforms of course to the employment of the term *neururgic pattern*, by Henry Rutgers Marshall, and to the further use of a similar term "*action pattern*" by a psychophysicologist like W. B. Cannon, also the term *behavior pattern* by the Behaviorist School.

Goddard could very well have increased the definiteness of his presentation by building up his conception of mental action on its physical side in harmony with the "neurogram concept" of Prince. It could be linked up with the behavior of consciousness. Even as it is, with a little labor of cross-referencing to other works on the physical basis of cerebration, we could easily develop Goddard's text-book into an excellent stepping stone by which the neurographic conception might cross the threshold of classroom consciousness.

Goddard has treated too cavalierly the sacro-sanct question of human T-H-O-U-G-H-T which he spells T-H-O-T. When we first saw this barbarism at the head of two of his chapters, which deal with the process of mentation, we

felt suddenly transported to the realm of tomfoolery. This is a sample of the startling practices in "cutting corners" that confer upon this book a simplified-spelling aspect—an aspect that arouses an unnecessary distrust of the scientific steadiness of the author.

From the standpoint of the Anomalist, who is delighted to see the Gordian knots of psychophysical parallelisms irreverently cut in twain and who is anxious to see the chariot of academic Psychology used as a vehicle to garner the fruits of experiences in the province of the Abnormal rather than treated as an exhibit in a museum, it would seem that Goddard had constructed a very good text book. In common parlance, it ought to make professors no less than students "sit up and take notice."

**I**T IS for what these works look forward to that they are valuable rather than for such finished products as they have to offer. The reader will have his mind prepared for the day when Abnormal Psychology shall have become a science more exactly and pointedly adjusted to its task. So far, they suggest with one voice although in quite different tone-qualities what this task should be: the correction or rectification of aberrant human thought and character. In different degrees, they focus upon the fundamental theme of the control of the emotional life. This is a subject left too much to the usually bootless presentations of novelists and dramatic writers, or moving picture producers.

Interest in the emotions is still in its spectacular phase and, as Richardson reminds us, the education of the emotions has been advocated for ages without any distinct advance of scientific technique being registered in this domain.

Why the emotions fail to enter the realm of scientific management and educational piece-work, in human engineering, may be gleaned by perusing these three books. Each contribution is a partial response to the inquiry:—

Richardson, by his reports of introspectors, wittingly and unwittingly shows what limitations there are to the knowledge to be had about even one emotion, unless one is willing to go "out of bounds" academically and follow the methods of the psychological gypsy we have supposed the enthusiastic Anomalist to be. One must study emotion *ON THE SPOT* in real life, not merely from a laboratory desk, with data handed in by subjects—self-consciously such.

Lay shows us unconsciously that in spite of the much more grasping methods of fact-collecting adopted by psychoanalysts and their ilk (who deal with emotionalized people in the raw individually and not in statistical masses) still the intellectual discipline of workers outside regular Psychology fails to co-ordinate the data of Abnormal Psychology.

Goddard, (being accustomed to putting things in words of one syllable for and concerning the feeble-minded) as if careless of fine distinctions, sweepingly lays down a concrete foundation for Abnormal Psychology by which the student may hope to place on a sort of common ground the various offerings that crop up in one or another of the special fields of Abnormal Psychology.

L. H. HORTON.



DYNAMIC PSYCHOLOGY. By Robert Sessions Woodworth, Ph. D. Columbia University Press, New York, 1918. Pp. 210. Price \$1.50.

Professor Woodworth begins this revision and enlargement of his *Jesup Lectures for 1916-1917* by presenting a brief description of the many streams of thought and investigation that have united to form the modern movement of psychology. As one of the oldest, most independent, and influential of the original sources from which this movement has developed, he would place abnormal or pathological psychology, as illustrated by the early work of Pinel and the modern contributions of such men as Binet. He concludes that "brass instrument psychology," to use an expression of William James, is but a small and over-emphasized part of the whole modern movement in this science.

In a lecture on "The Problems and Methods of Psychology" the extreme behaviorist is criticised for wishing to exclude a legitimate method and object of study and, on the other hand, the extreme introspectionist who would exclude the study of behavior by objective methods is considered equally at fault. Both methods of attack have yielded rich results. It is a question of emphasis. In reality, much of the experimental work done from the time of Fechner to the present has really been on human behavior and only incidentally, if at all, on consciousness. If certain secondary criteria are excluded, there is practically no difference between the simpler forms of introspection and ordinary objective observation. However, according to Professor Woodworth, the description of consciousness from the introspective or behavioristic point of view is not the real aim of the workers in this science. From Locke, Berkeley, and Hume, to the present-day workers "the actual interests of psychologists, as revealed by the problems taken up, have centered on the problem of cause and effect," *i. e.*, dynamics, the same phase that interests the beginner in psychology. Consciousness and behavior, separately or together, do not provide a coherent system for the casual treatment of the mental side of vital activity.

For dynamic psychology there are two problems, that of "mechanism" and "drive,"—how is a thing done, and what causes it to be done? While "drive" or "motive" is usually considered as something external, Professor Woodworth, by employing the physiological facts of reinforcement and inhibition, prepares the way for a conception of inner motive. Reinforcement and inhibition show to him conclusively that one nerve center is able to furnish drive for another. "Thus, though the drive for nerve activity may be ultimately external, at any one moment there are internal sources of influence furnishing drive to other parts of the system." Therefore, "drive" is not essentially distinct from "mechanism," and it is argued that any mechanisms, particularly those directed towards consummatory reactions, come to act as drives.

In the third lecture or chapter, "Native Equipment of Man," which is perhaps most characteristic of this contribution to dynamic psychology by Professor Woodworth, native equipment is held to include "aptitudes or 'gifts' for certain activities, or for dealing with certain classes of things." These native capacities

are set off from instincts in that they do not have ready-made reactions to stimuli. Hence these mechanisms are only gradually developed through the experience and learning of the individual. Professor Woodworth stresses the important driving powers of these mechanisms developed on natural capacities of the individual for dealing with certain classes of objective material, *e. g.*, machinery, mathematics, and music, and would list them as belonging to the prime movers of human action, contrary, he thinks, to the commonly accepted view of motivation. In fact, he states that the definite aim of this book is to show how such mechanisms are powerful drives and that any mechanism, once it is aroused, is capable of furnishing its own drive and also of lending drive to other connected mechanisms, and this wholly aside from the "overhead power system of the instincts." Incidentally, this point of view leads him to insist that the organism is not naturally inert to the high degree signified by certain psychopathologists.

In lectures on "Acquired or Learned Equipment," "The Factor of Selection and Control," and "The Factor of Originality," Professor Woodworth further develops his conception of drive. It is wholly impossible for him to believe that the industry of the genius is driven from hunger or sex or rivalry or any of this class of prime movers. The attitude of play characteristic of genius is cited as demonstrating that the activity contains the drive within itself.

Experimental psychology has treated of mechanisms more than of drives. On the contrary, psychopathology concerns itself more with drive than with mechanism. Consequently the author finds much in "abnormal behavior" that is of importance for his view of motivation. The feeble minded are not only lacking in drive but also in mechanism, and since these are not fundamentally different, if they can be taught mechanism, they will thus be provided with motivation. The delusion of the paranoiac, initiated by some normal (instinctive) drive, becomes crystallized through the process of trial and error and comes to act as a drive, on its own account facilitating and inhibiting actions and perceptions that would otherwise be possible but not probable.

The author finds many reasons for disagreeing with the Freudian psychology and carefully criticises its conceptions of suppression and sublimation. Although regarding the sex impulse as a prime mover, he is convinced that if this impulse alone were in action, the resulting behavior of the organism would usually be much more direct. Many social amusements undoubtedly draw the sex motives into their service to add spice to play, but without other drives even the amusement of dancing would not exist. Since this is true of behavior that is obviously sexual, or may be given such an interpretation, "it can scarcely be less true in behavior that seems to be fundamentally driven by quite other motives." If the mechanisms developed by the abnormal individual, whether genius or insane, thus prove capable of supplying drive in and of themselves, it would seem that it is characteristic of all mechanism whether with abnormal or normal individuals that they should become drives, and consideration of them as such is, he believes, of greatest importance for dynamic psychology.

This nicely made and very acceptable volume by Professor Woodworth is written in a charming style; it has been rendered convenient by references and index, and will provide a useful auxiliary text for courses introducing general psychology.

Nutrition Laboratory, Boston.

W. R. MILES.

**HUMAN PSYCHOLOGY.** By Howard C. Warren, Stuart Professor of Psychology, Princeton University. Houghton Mifflin Co. Boston, New York and Chicago, 1919. Pp. xx, 460; figs. 68. Price, \$2.75 net.

By way of philosophic contrast, the professor at Princeton has given the world a text-book of psychology "with a soul" or at least a mind—a mere detail which Professor Watson's materialistic system tries to do without, as we have just seen above. The difference in the two views (and the matter is suggestive of the failure of the master-behaviorist's definition of psychology) is expressed by two sentences (from page 29): "Mental life consists in the adaptations of an organism to changing conditions of its environment, and the processes which bring about these adaptations constitute experience. Experience includes behavior and consciousness—behavior being the action of the creature upon his environment, and consciousness an effect of environment on the creature." What further could be sought for or declared? The organization of organisms is two fold, vital and mental, the latter including among other functions, rational action; in man mental life "may even replace the vital life as the chief factor of his existence." In the very humble opinion of the reviewer this attitude represents the rational ultima Thule of the infection (by no means an epidemic) with the *Bacillus behavioristicus*.

The twenty-three chapters (four in the appendix) of this excellent text by the well-known editor of the *Psychological Review* are titled as follows: The science of psychology; the organism; the neuro-terminal mechanism; physiology of the neuron; stimulation, adjustment, and response; behavior, (two chapters); conscious experience; the senses (two chapters); the components of mental states; primary mental states (two chapters); secondary mental states, (two chapters); succession of mental states; attitudes; character and personality; organized mental life; the mind-body relation; mechanism and purpose; neural activity; and the visual process. Directions for performing the exercises. Index (adequate because detailed). Twenty-three "tables" add greatly to the value of the book because they are systematizers and therefore fixers of the learner's concepts: "Classification of science; vital and mental functions; human reflexes; human instincts; instinctive tendencies of man; progress of learning; fundamental operations of conscious experience; spectral lines and color range; complementary colors; classes of odors; threshold of intensity for taste; classification of the senses; classes of mental states; values of the Weber constant; secondary mental states; human emotions; classification of sentiments; classes of associations; human attitudes; human dispositions; higher human attitudes; classification of temperaments; and visual phenomena."

So famously has Professor Warren stated certain special conclusions regarding mental life which his book has aimed to bring out, that perhaps we can not do better than to quote them in full. They read as follows:

"(1) The mental life of man and other creatures depends upon the presence of an *inherited neural mechanism*. Every conscious experience is accompanied by activity of the nervous system. Conscious experiences, or mental states, may be regarded as the subjective aspect of nerve activity. The complexity and effectiveness of these neural processes depend upon the degree of structural organization of the inherited neuro-terminal system. In man this system is highly organized; it is derived jointly from two parents and is due in part to each.

(2) Mental life depends also upon the presence of an *active environment* which operates upon the neuro-terminal system through the process called stimulation. The data which enter into experience are derived either directly or indirectly from stimuli outside the body, the internal stimuli being traceable ultimately to previous external stimulation. In man the social environment is an important factor in developing the higher phases of mental life.

(3) Mental life depends, accordingly, upon the *interaction of a creature and his environment by means of a neuro-terminal system*. Mental activity may be regarded as the stimulative effect of the environment upon the creature, with the resulting responsive effect of the creature upon the environment brought about by neural processes.

(4) Each specific manifestation of mental life may be studied as a sequence of stimulation, adjustment, and response; this chain of processes constitutes behavior. The most important factor in behavior is the *adjustment process*; this may be studied by the human individual through observation of his own experiences. Self-observation is examination of the central adjustment phenomena as mental states, or conscious experiences.

(5) The types of mental states found in man are a *gradual growth*. Even our attitudes, character, and personality undergo development during our life-time. They are not implanted at birth, but are formed by degrees. While the mental states which appear in the adult human individual may be investigated separately as static phenomena, the organization of mental life which produces them can only be adequately explained in genetic terms. Mental organization develops gradually in each individual; its structural basis has evolved step by step in race history.

(6) The evolution of every structure and of each type of process concerned in mental life depends upon its utility. In order to survive, an organism must be *adapted to its environment*. Like every other biological product the neural mechanism, by whose operation experiences are organized, is believed to have arisen originally through some chance variation—that is, through some new combination of factors in the germ cells. The persistence of the new structure is due to the fact that the individuals which possess it are more fitted

to survive than those in which it is lacking. The same is true of the various forms of experience. The higher types of mental states (such as thought and language) which have grown up and established themselves in the human species, have arisen and persisted because they proved useful in mediating between man and his environment."

Altogether, this work is the most inclusive, the most complete, new text-book of psychology known to the present reviewer, vieing with Titchener's in this respect. It appeals strongly to the practical pedagogue because it is arranged on the principles of the easiest and truest acquirement. Even the saving and important touch of humor is present—the blessed ten-in-one oil which makes learning a pleasure, despite the opinion of certain pseudo-dignified snobs to the contrary. The illustrations are excellent and some of them original. Lists of references extend the influence of each chapter. The table of contents is complete.

Many readers, especially they who are in contact with many abnormal minds, will miss from this work, so timely in other respects, adequate emphasis on the dynamic point of view. Freud's views are briefly discussed, but the sub-conscious aspects of mind, as presented by Ribot, Bergson and sundry American writers, is given scant discussion. One looks in vain for the kinesthetic basis of perception in general (looking, listening, sniffing, tasting, etc.), although nothing is more essential for a real understanding of the teleology of organism, no one point more indispensable to the sanction of the flesh. The dynamic view-point is present, but the static notion somehow gets more notice than it deserves. Inhibition is scantily discussed; on the other hand the more or less meaningless plan of the areas of the great cortex is given in some detail, while the layer-hypothesis is ignored.

On the whole, the present reviewer has no hesitation in believing this work the most complete text-book of psychology for the use of all who need a real text-book of the science that has been recently placed on the market. The neuro-psychiatrist and the psychopathologist any more than the college student can not afford to long remain without its far-reaching substance.

GEORGE VAN NESS DEARBORN.

SARGENT NORMAL SCHOOL.

**NERVE CONTROL AND HOW TO GAIN IT.** By H. Addington Bruce. Published by Funk & Wagnalls Company, New York and London, 1918. Price, \$1.00, net.

H. Addington Bruce has here collected together and published in book form, some of his "Daily Talks," on various aspects of the subject of nervous and mental health, which have appeared in the columns of the important group of American and Canadian evening newspapers known as the Associated Newspapers, with their tremendous circulation. His talks deal, for the most part, with practical suggestions as to prevention and self cure of nervous and mental distress,

which, as he says in his preface, reduces itself to thinking healthfully and learning to live healthfully.

There are, in all, fifty-eight (58) "Talks," which are brief and to the point, and on a large variety of topics. What he says is interesting, illuminating, and for the most part true. He discusses such various subjects as "What Nervousness Is," "Signs of Nerve Strain," "Habit and Nervousness," "Hurry Means Worry," "Silence and Relaxation," "Colors and Nerves," "Posture and Character," etc.

A few of the points he mentions may be enumerated. "Nervousness is not a disease in itself. It is, rather, a symptom of ill health from any one of a number of causes, some of which are primarily physical, others primarily mental." One must ascertain "the precise cause of the nervousness in each individual case and give treatment appropriate to the particular case." "Early training of the will power, with special reference to control of the emotions and suggestibility, is therefore the surest prevention known of the functional nervous diseases." (Very good, indeed).

He believes in the existence of so called "habits pains," of subjective nature. In this, I am convinced, he is in error. I believe I have proven conclusively, to my own satisfaction, at any rate, in a paper entitled "Are There Subjective Pains?" the *Medical Record*, August 25, 1917, that pains are always of peripheral origin, and that there cannot exist subjectively induced, ideational, hypnotically induced, delusional or imaginary pains of any sort.

He pleads with the nervous or mental patient: "Don't talk about symptoms," but "Think health, talk health."

He stresses the importance of good physical health, of the danger of hurry and worry, the advantages of repose.

"Learn to play," he urges. In his talk on "Silence and Relaxation," he rightly declares: "Learn to relax both physically and mentally."

In his chapters on "Headaches" and "Nervous Dyspepsia" he speaks of some of these cases being of directly ideational, habit-formation origin, which is not scientifically possible or true. (See reviewer's paper "How Far Can the Mind Really Influence the Body," in *Medicine and Surgery*, March, 1918).

The value of sunshine, of cheerfulness in the home, even as radiated from the hangings, rugs and furniture, wall paper, etc., is discussed.

Yellow and red are potentially over irritant and exciting; deep shades of blue, approaching violet, are depressant; and green and light shades of blue are tranquillizing. Hence green and light shades of blue should be favored in the choice of color for household decoration or articles of dress for nervously inclined or irritable, excitable persons.

"Sit straight, stand straight, walk straight" is his advice, especially to the nervous.

Certain common causes of restlessness are enumerated.

In general, then, from the above survey, one can see that Bruce has a really

deep understanding of the so-called neurotic or sensitive person. He realizes that the fundamental trouble is the over sensitiveness, the impressionability or reactivity or irritability—the relative instability. And that the problem is to find the cause or causes, and the diverse means to prevent unrest and secure or gain poise. The methods necessarily vary in each case.

Bruce is to be highly praised for the clarity and directness of his presentation, which the average layman can fully understand.

Every physician, every nervous patient, every normal, healthy person, will find the book of interest and of practical value. It is, except for the reference to habit (ideational) pains, including headaches, and dyspepsia, a safe, sane and reliable book which can be put into the hands of the nervously ill but intelligent patient.

Let Bruce keep up his good work—for he certainly is doing much good by his writings, published so widely and read by such a large audience as is afforded by the Associated Newspapers.

MEYER SOLOMON.

THE EROTIC MOTIVE IN LITERATURE. By Albert Mordell. Boni and Liveright, New York. 1919. Pp. V. No. 250. Price, \$1.75 net.

In this volume we have Freudian principles applied to literature by a man whose knowledge and understanding of letters are more than those of an amateur. While Mr. Mordell's grasp of psychoanalytic principles is adequate, it is in his application of these to authors and their works that his judgment and skill are best evidenced. And the result is, to be sure, itself literature, or literary criticism of a high order, rather than a contribution to psychoanalysis: yet it can hardly fail to interest psychoanalysts if only because it shows that Freudian principles work well in the hands of a man of letters.

To any but Freudians the word "erotic" in the title will be a bit misleading, although the Author states (p. 1) that, "the terms 'unconscious' and 'erotic' are almost synonymous." It is with the influence upon an author of his libido that the book deals; and the ego-motive, in any Adlerian sense, is so subordinated to the sexual as to be almost ignored. Egotism becomes "*self-love*." Of this sort, then, there are concise but often carefully documented studies of Homer, Keats, Shelley, Byron, Browning, Swinburne, Cowper, Gautier, Poe, Renan, Dickens, Ch. Brontë, Stevenson, Hearn, and Kipling: with briefer comments on Dante, Petrarch, La Rochefoucauld, Balzac, Nietzsche, Whitman, Tennyson and many others.

Mr. Mordell is a faithful Freudian and with him, as with so many others, psychoanalysis, thought not an exact, is a deductive science. That is, he deduces from facts about authors and their works with the aid of Freudian principles his conclusions; he does not get by induction from the facts any new psychoanalytic principles or new refinements thereof. It is not thus that any possible errors in

the original formulation of the Freudian creed are going to be corrected. Thus it should seem that the principles of repression and the unconscious are being overworked when we read that, "The wish . . . to devote oneself to the following of an ambition or the pursuit of a certain kind of labour, are all symptoms of repressions" (p. 129). Should we, then, except for our repressions, be doing nothing? Furthermore, there are non-Freudian principles that need as well to be taken into account. In the chapter on "Sexual Symbolism in Literature," for instance, several paragraphs on the symbolism of words lack point because the Author forgets that *every* word, unless a proper name, is a symbol, or better, a veritable palimpsest of symbols: and the symbolism is by no means exclusively sexual. On the whole, it is the palliative or curative aspect of literature, as regards both an author and his readers, that is brought out in Mr. Mordell's study.

The Author rather exalts the importance of emotion: and is singularly insistent on the literal reality of what Darwin and others have called "racial memory." "Our psyche never forgets the episodes in the lives of our ancestors" (p. 173). He has unearthed a paragraph of William Hazlitt's in which Freud's theory of dreams is in the clearest terms anticipated. "Freud's work may almost be called a commentary on this extraordinary passage" (p. 32). But one cannot review in detail a work of which every page is interesting. The book deserved more attention paid to small points of grammar and other exactnesses; and it very much needs an index.

Mr. Mordell's "Erotic Motive" is valuable as literary criticism, as a study in the psychology of literary composition and of "genius," and as one of the best applications of psychoanalysis to works of literature.

EDWIN B. HOLT.

RELIGION AND CULTURE. A Critical Survey of Methods of Approach to Religious Phenomena. By Frederick Schleiter. Columbia University Press, New York, 1919. Pp. 193 and Bibliography.

As the title indicates, this volume is intended rather as a critical review than as an original contribution to this extensive subject, one covered by such terms as comparative religion, social psychology, anthropology, and ethnology (in the German sense). The author is mainly concerned with the difficult question of methodology; he discusses the criteria we possess for the interpretation of anthropological data, the principles underlying the various modes of approach, and the most suitable starting points for investigation. These are very complex problems, which can only be discussed in an appropriate place and at considerable length, so that the reviewer will confine himself here to giving his impression of the book as a whole.

One feels that the author, doubtless in the endeavour to be objective, has refrained too much from constructive criticism of the methods he deals with, so that the book consists too much of a series of quotations of one theory and



method after another, and fails to present the organic relations between them in an imaginative way. It serves the purpose excellently well of orienting students as to the main trends of work in these fields, and provides a useful and well-chosen bibliography. That his presentation of these, however, is not always to be depended on may be illustrated to the readers of this Journal, familiar with the dynamic psychology of Freud, by the following passage, where they will be astonished to read that Freud "considers that they (i. e. the traditional principles of associationism—contiguity in space and time, cause and effect, and similarity) constitute a satisfactory explanation of the juxtaposition of psychic content involved in magic. The support of this position by Freud is nothing short of a curious anachronism." As it is mainly Freud's work which has made such a position an anachronism, the comment is distinctly entertaining. The absurdity of a further passage "Freud states that he was led to the use of the term "*Allmacht der Gedanken*" by means of the psycho-analysis of a man who seemed to possess it in a striking way" may be due merely to careless writing, but the author's grasp of the subject is not such as to encourage one to give him the benefit of the doubt on the point. The usefulness of the book is unfortunately marred by its being written in a barbarous German-American which makes it very trying to read.

ERNEST JONES.

## BOOKS RECEIVED

*The Dream Problem.* By Dr. R. V. Khedkar. "Practical Medicine." Delhi, India. Pp. XXX and 371.

*Cephalometry of Feeble-Minded.* By S. D. Porteus. The Training School at Vineland, N. J. (Pamphlet) Pp. 24.

*The Don Quixote of Psychiatry.* By Victor Robinson. Historico Medical Press. (N. Y.) Pp. 339.

*An Outline of Abnormal Psychology.* By James Winfred Bridges. R. G. Adams & Co. (Columbus, Ohio). Pp. 126.

*Experiments in Psychical Science.* By W. J. Crawford. E. P. Dutton & Co. Pp. IX and 201. \$2.

*Modern Psychical Phenomena.* By Hereward Carrington. Dodd, Mead & Co. XI and 331. \$2.50.

*Human Psychology.* By Howard C. Warren. Houghton, Mifflin & Co. Pp. XX and 460. \$2.75.

*Our Nervous Friends.* By Robert S. Carroll, M. D. The Macmillan Co. Pp. 258. \$2.

*The Intellectuals and The Wage Earners.* By Herbert Ellsworth Cory. The Sunrise Turn. Pp. 273.

*The Essentials of Psychology.* (Revised Edition). By W. B. Pillsbury. The Macmillan Co. Pp. XIII and 428.

*Human Personality and Its Survival of Bodily Death.* By F. W. H. Myers. Longmans, Green & Co. Pp. XIII and 307. \$2.50.

*The Opium Monopoly.* By Ellen N. LaMotte. The Macmillan Co. Pp. XVII and 84. \$1.

*The Problem of The Nervous Child.* By Elida Evans. Dodd, Mead & Co. Pp. VIII and 299. \$2.50.









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